# Inflation Report

August 2012

BANK OF ENGLAND

BANK OF ENGLAND

# Inflation Report

August 2012

In order to maintain price stability, the Government has set the Bank's Monetary Policy Committee (MPC) a target for the annual inflation rate of the Consumer Prices Index of 2%. Subject to that, the MPC is also required to support the Government's objective of maintaining high and stable growth and employment.

The *Inflation Report* is produced quarterly by Bank staff under the guidance of the members of the Monetary Policy Committee. It serves two purposes. First, its preparation provides a comprehensive and forward-looking framework for discussion among MPC members as an aid to our decision making. Second, its publication allows us to share our thinking and explain the reasons for our decisions to those whom they affect.

Although not every member will agree with every assumption on which our projections are based, the fan charts represent the MPC's best collective judgement about the most likely paths for inflation and output, and the uncertainties surrounding those central projections.

This *Report* has been prepared and published by the Bank of England in accordance with section 18 of the Bank of England Act 1998.



The Overview of this *Inflation Report* is available on the Bank's website at
**www.bankofengland.co.uk/publications/Pages/inflationreport/infrep.aspx.**

The entire *Report* is available in PDF at
**www.bankofengland.co.uk/publications/Pages/inflationreport/ir1203.aspx.**

PowerPoint™ versions of the charts in this *Report* and the data underlying most of the charts are provided at
**www.bankofengland.co.uk/publications/Pages/inflationreport/ir1203.aspx.**

# Contents

# Overview

Global demand growth has slowed, with activity in the euro area being especially weak. In the United Kingdom, output has been broadly flat over the past two years. Although output is estimated to have fallen for three consecutive quarters, the scale of that contraction was amplified by a number of erratic factors and so probably exaggerates the weakness of underlying activity. Even so, underlying demand growth is likely to remain muted in the near term. But a gentle pickup in the growth of households' real incomes, combined with the stimulus from the asset purchase programme and the Funding for Lending Scheme should spur a modest recovery. The impact of the euro-area debt crisis, together with the fiscal consolidation and tight credit conditions at home, is likely to continue to weigh on demand.

CPI inflation fell further, standing at 2.4% in June. The near-term outlook is lower than three months ago, reflecting falls in energy prices and some broader-based weakness in price pressures. Under the assumptions that Bank Rate follows a path implied by market interest rates and the size of the asset purchase programme remains at £375 billion, inflation is a little more likely to be below than above the 2% target for much of the second half of the forecast period, as the impact of external price pressures wanes and domestic cost pressures ease. The risks to inflation around the target are judged to be broadly balanced by the end of the forecast period.

## Financial and credit markets

Since the May *Inflation Report*, the MPC has increased the size of its asset purchase programme by £50 billion to a total of £375 billion. The MPC maintained Bank Rate at 0.5% and market interest rates suggest that Bank Rate is not expected to increase to above that level until 2015. Financial markets continue to be dominated by developments in the euro area, with yields on Spanish and Italian government debt increasing markedly. Conversely, ten-year gilt yields fell to record lows. The sterling ERI appreciated a little.

Credit growth remained moribund. Lending conditions facing UK households and companies tightened in 2012 Q2 and had been expected to deteriorate further in Q3 in the face of increased funding costs for banks. In response, the Bank and the Government announced the Funding for Lending Scheme (FLS), which provides banks with a cheaper source of funding linked to the extent to which they expand lending to the UK real economy.

## Demand

Exports fell over the four quarters to 2012 Q1, reflecting both a broad-based slowing of global demand growth and the United Kingdom's lower share of world trade. Business surveys

suggest that euro-area GDP contracted in 2012 Q2, with activity subdued in several member countries and declining markedly in some. Growth has also moderated in the United States and a number of emerging economies. The sterling exchange rate has appreciated somewhat over the past year, particularly relative to the euro. If that were to continue it could make it harder for British producers to compete in world markets.

At home, output is estimated to have contracted for three consecutive quarters, such that the level of output in 2012 Q2 is estimated to be lower than in the middle of 2010. But the scale of that fall probably exaggerates the weakness of underlying demand growth. Much of the contraction in the first half of this year reflects unusually large declines in measured construction output. Falls of that magnitude appear out of line with industry surveys and seem unlikely to persist. Moreover, the additional Jubilee bank holiday is likely to have depressed output markedly in Q2.

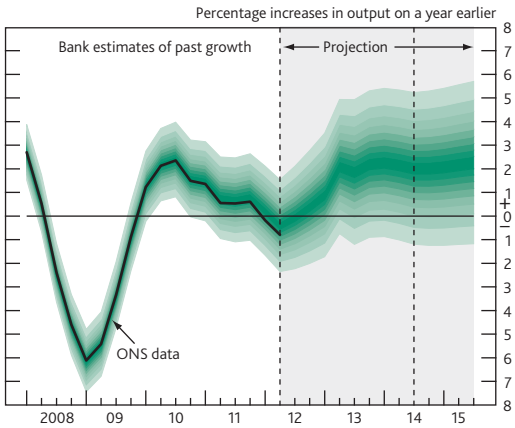
The Committee's projections are conditioned on the tax and spending plans set out in the 2012 March *Budget*.

## The outlook for GDP growth

**Chart 1** shows the Committee's best collective judgement for four-quarter GDP growth, assuming that Bank Rate follows a path implied by market interest rates and the size of the asset purchase programme stays at £375 billion. The recent pattern of quarterly growth has been affected by a number of erratic factors and this is likely to continue through the remainder of this year. Looking through those effects, underlying growth will probably remain soft in the near term. But a gentle strengthening in the growth of households' real incomes, together with the combined stimulus from the asset purchase programme and the FLS, should prompt a gradual pickup in economic activity. The significant challenges faced by the euro area, together with the continuing fiscal consolidation and tight credit conditions at home, are, however, likely to weigh on demand.

The outlook for UK growth remains unusually uncertain. The greatest threat to the recovery stems from the risk that an effective policy response is not implemented sufficiently promptly in the euro area to ensure that the adjustments in the level of debt and competitiveness required by some member countries occur in an orderly manner. Even if an effective set of policies is implemented, the scale of the necessary adjustments points to a sustained period of sluggish euro-area growth and heightened uncertainty. As in past *Reports*, the MPC sees no meaningful way to quantify the size and likelihood of the most extreme possibilities associated with developments in the euro area, and they are therefore excluded from the fan charts. But the threat of these more extreme outcomes is likely to continue to weigh on UK economic activity over the forecast period, for example

**Chart 1** GDP projection based on market interest rate expectations and £375 billion asset purchases




The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £375 billion and remains there throughout the forecast period. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP growth would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outturns are also expected to lie within each pair of the lighter green areas on 10 occasions. In any particular quarter of the forecast period, GDP growth is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions GDP growth can fall anywhere outside the green area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In **Chart 1**, the probabilities in the upper bands are the same as those in the lower bands at Years 1, 2 and 3. See the box on page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

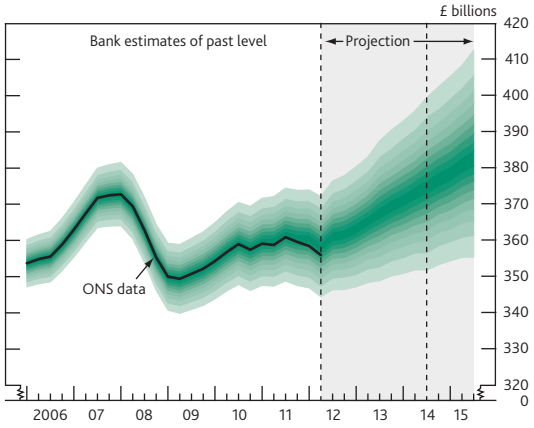
through its effect on asset prices and confidence. This dampening effect is captured in the MPC's projections.

Some of the key headwinds that have restrained growth over recent years should abate as an easing of external price pressures reduces the squeeze on households' real incomes and the FLS improves the cost and availability of bank credit. But it is difficult to judge the extent of this support to growth or how quickly it will come through. More generally, it is difficult to know why both output and productivity have remained so weak in the aftermath of the financial crisis, and therefore how persistent that weakness will be.

There remains a range of views among Committee members about the outlook for GDP growth. On the above assumptions, the Committee's best collective judgement is that the economy will gradually recover, but that GDP growth in the second half of the forecast period is more likely to be below than above its historical average rate. That outlook is weaker than in the May *Report* reflecting the possibility that the factors contributing to the weakness of growth since the financial crisis may persist. The difficulty of knowing for how long these factors will continue has caused the Committee to widen the GDP fan chart.

The level of output is not likely to surpass its pre-crisis level until 2014 (**Chart 2**). Much of this sustained weakness in output appears to have been associated with slow growth in potential supply. Even so, the Committee judges that there exists a sizable margin of spare capacity, largely concentrated in the labour market. That is likely to diminish slowly over the forecast period.

**Chart 2** Projection of the level of GDP based on market interest rate expectations and £375 billion asset purchases




Chained-volume measure (reference year 2009). See the footnote to **Chart 1** for details of the assumptions underlying the projection for GDP growth. The width of this fan over the past has been calibrated to be consistent with the four-quarter growth fan chart, under the assumption that revisions to quarterly growth are independent of the revisions to previous quarters. Over the forecast, the mean and modal paths for the level of GDP are consistent with **Chart 1**. So the skews for the level fan chart have been constructed from the skews in the four-quarter growth fan chart at the one, two and three-year horizons. This calibration also takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to GDP growth in one quarter will continue to have some effect on GDP growth in successive quarters. This assumption of path dependency serves to widen the fan chart.

## Costs and prices

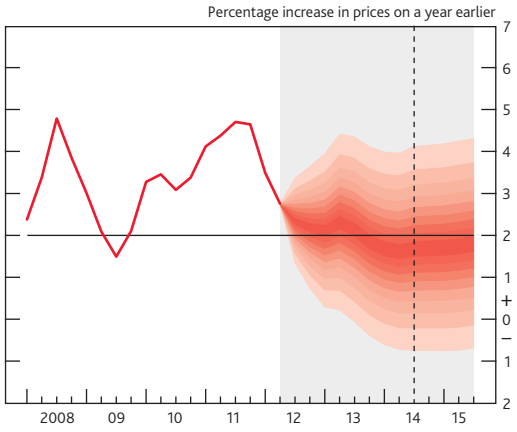
CPI inflation fell to 2.4% in June 2012, from 3.5% in March. That fall was almost entirely accounted for by lower goods price inflation, including a lower contribution from petrol prices. Agricultural commodity prices have risen following unusually dry weather in the United States. Most measures of long-term inflation expectations remain broadly in line with their historical averages, and the recent fall in inflation towards the target reduces the risk of inflation expectations becoming less well anchored.

Employment growth remains puzzlingly robust. Despite the fall in output, private sector employment increased strongly in 2012 Q1 while the unemployment rate edged lower. Private sector productivity is still below its pre-crisis level. Annual private sector regular pay growth remains around 2%, held in check by elevated unemployment and the weakness of productivity. Companies' unit wage costs continue to increase at close to their average historical rate.

## The outlook for inflation

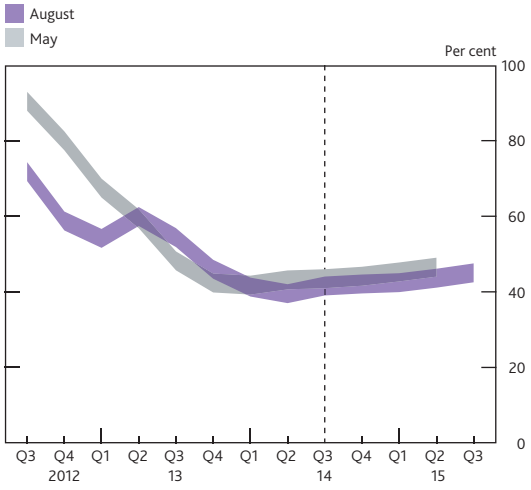
**Chart 3** shows the Committee's best collective judgement of the outlook for CPI inflation, based on the same assumptions

**Chart 3** CPI inflation projection based on market interest rate expectations and £375 billion asset purchases




The fan chart depicts the probability of various outcomes for CPI inflation in the future. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £375 billion and remains there throughout the forecast period. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outturns of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the red area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In **Chart 3**, the probabilities in the upper bands are the same as those in the lower bands at Years 1, 2 and 3. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed line is drawn at the two-year point.

**Chart 4** An indicator of the probability that inflation will be above the target




The August and May swathes in this chart are derived from the same distributions as **Chart 3** and **Chart 5.7** on page 41 respectively. They indicate the assessed probability of inflation being above target in each quarter of the forecast period. The 5 percentage points width of the swathes reflects the fact that there is uncertainty about the precise probability in any given quarter, but they should not be interpreted as confidence intervals. The dashed line is drawn at the two-year point of the August projection. The two-year point of the May projection was one quarter earlier.

as **Chart 1**. The near-term outlook lies below that in the May *Report*, reflecting lower energy prices and some broader-based weakness in price pressures. Inflation is likely to fall further in the coming months, so that it is more likely than not to be around or a little below target for much of the forecast period, as the impact of external price pressures eases, and a partial recovery in productivity growth and continued labour market slack restrain domestic cost pressures.

The weakness in demand growth in recent years appears to have been accompanied by below par supply growth. That may be because the weakness in demand growth has affected the expansion of effective supply, for example, if firms have to use more resources to gain orders when demand is weak. It may also reflect that demand and supply growth have been constrained by the same factors, for example, the sustained period of tight credit conditions. Distinguishing between these two possibilities is very difficult. In either case, the likelihood that developments in supply and demand will continue to be closely associated suggests that some of the sources of uncertainty affecting the outlook for growth may have only limited implications for spare capacity and hence inflation.

Even so, considerable uncertainty surrounds the inflation outlook. Inflation can be buffeted by movements in commodity prices, which are highly volatile. Domestically, it is difficult to know how developments in productivity and the margin of spare capacity will affect companies' costs, and the extent to which profit margins will be restored by companies raising prices rather than reducing costs.

There remains a range of views among Committee members regarding the relative strength of these different factors. On balance, the Committee's best collective judgement, based on the conditioning assumptions described above, is that inflation is a little more likely to be below than above the 2% target for much of the second half of the forecast period, but those risks are broadly balanced by the end of the forecast period (**Chart 4**).

## The policy decision

At its August meeting, the Committee noted that tensions within the euro area had heightened in recent months and this had increased some private sector funding costs in the United Kingdom, especially for banks. Output growth had been weak, and inflation had fallen sharply and was expected to fall back further to around the target. The Funding for Lending Scheme had just opened, and, at its July meeting, the Committee had expanded the size of the asset purchase programme by £50 billion to £375 billion. Against that backdrop, the Committee decided that it was appropriate to maintain Bank Rate at 0.5% and the size of the asset purchase programme at £375 billion in order to meet the 2% CPI inflation target over the medium term.

# 1 Money and asset prices

The MPC increased the scale of its asset purchases, financed by the issuance of central bank reserves, to £375 billion and maintained Bank Rate at 0.5%. Financial markets remained sensitive to developments in the global economy, and especially those in the euro area. In 2012 Q2, before the introduction of the Funding for Lending Scheme (FLS), some measures of banks' funding costs had increased further and credit conditions had continued to tighten. The creation of the FLS should help to ease credit conditions by providing banks with a cheaper source of funding and by encouraging them to lend more.

Following the May *Report*, financial markets showed renewed signs of stress, driven, in large part, by heightened concerns about the indebtedness and competitiveness of several euro-area countries. In the run-up to the August *Report*, government bond yields in Spain and Italy remained higher than in early May, despite the measures agreed at the EU summit in late June (Section 1.2).

UK credit conditions tightened further in Q2, but the launch of the Funding for Lending Scheme (see the box on pages 14–15) by the Bank and the Government provides banks with a cheaper source of funding and encourages them to lend more to households and businesses than they otherwise would have done (Section 1.3). In July, the MPC expanded its programme of asset purchases (Section 1.1). Those measures should boost money growth (Section 1.4) and support nominal spending.

## 1.1 Monetary policy

At its July meeting, the MPC voted to expand the size of its asset purchase programme, financed by the issuance of central bank reserves, to £375 billion from £325 billion. That round of purchases is expected to be completed in November. The MPC judged that, against a background of continuing tight credit conditions and fiscal consolidation, the increased drag from heightened tensions within the euro area meant that it was more likely than not that inflation would undershoot the 2% target in the medium term without additional monetary stimulus. The reasons behind the MPC's recent policy decisions are discussed in more detail in the box on page 10.

As discussed in previous *Reports*, the asset purchase programme initially raises investors' money holdings when they sell gilts to the Bank. Over time, as investors reinvest the proceeds from those gilt sales, that should boost the price of other assets, such as equities and corporate bonds. In turn,

## Monetary policy since the May *Report*

The MPC's central projection in the May *Report* was for underlying demand growth to remain subdued in the near term before gradually increasing thereafter. That was based on the assumptions that Bank Rate followed a path implied by market interest rates and that the stock of purchased assets financed by the issuance of central bank reserves remained at £325 billion. Under the same assumptions, the MPC judged that CPI inflation was likely to remain above the 2% target for another year or so before falling back further to around the target.

At the time of the MPC's meeting on 6–7 June, the near-term outlook for UK activity had softened, and activity appeared to be slowing in the euro area, United States and some emerging economies. CPI inflation had fallen to 3.0% in April, from a peak of 5.2% in September. Lower commodity prices meant that the near-term outlook for inflation was weaker than the Committee had anticipated at the time of the May *Report*. Further ahead, the Committee's central judgement remained that inflation would decline gradually as the impact of past increases in energy and import prices dissipated, and a margin of spare capacity bore down on wages and prices.

All Committee members judged that the balance of risks to medium-term inflation had shifted to the downside. The upside risks to inflation had lessened, as the weaker near-term outlook for inflation had reduced the risk that inflation expectations might not fall as quickly as anticipated. In addition, the downside risks appeared to have grown, in large part reflecting the fact that the risks to UK and global activity from the euro area had intensified again. The MPC judged that, even absent a disorderly outcome, the continuing threat of such an outcome would weigh on economic activity and UK banks' ability and willingness to extend credit.

On balance, most members judged that some further economic stimulus was either warranted immediately or probably would become warranted in order to meet the inflation target. Some members judged that there was already a compelling case for a further monetary stimulus. But most members noted that there were several key events occurring over the following weeks such that there was merit in waiting to see how matters evolved before reaching a conclusion on whether to add any further monetary stimulus. That would also allow time for an assessment of any policy recommendations made by the interim Financial Policy Committee and for the possibility of other policy tools to be explored. Some members also remained concerned about the possible persistence of inflation at above-target rates.

In addition, there were questions about the form any stimulus should take. The Committee considered the merits of a reduction in Bank Rate, but voted unanimously to maintain Bank Rate at 0.5%. Five members voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £325 billion. Three members preferred to increase the size of the programme by £50 billion, and one member preferred to increase the programme by £25 billion.

Ahead of the MPC's meeting on 4–5 July, the near-term outlook for GDP growth had deteriorated further. There were increasing signs that the threat of a disorderly resolution of the financial tensions in the euro area was affecting growth at home. Business survey indicators of activity had been weak, and information received during the month suggested that export prospects had weakened.

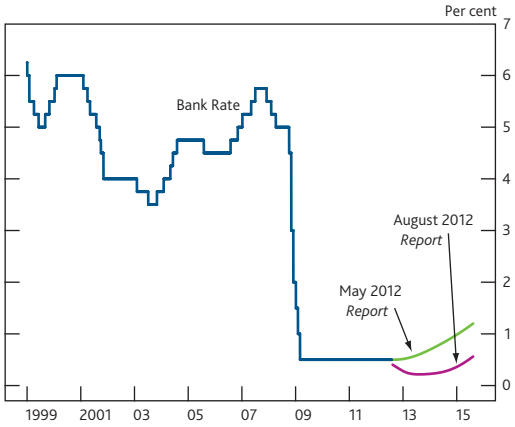
Inflation had fallen slightly faster than the Committee had expected at the time of the May *Report*, reaching 2.8% in May. And with inflation likely to fall modestly during the rest of the year, it had become less likely that expectations of elevated inflation would become ingrained in wage and price-setting behaviour.

In light of the change in the risks to the outlook for inflation since the May *Report*, all members judged that further economic stimulus was required in order to meet the inflation target in the medium term. A potentially significant, but hard to calibrate, additional stimulus would come from the Funding for Lending Scheme, the prospective relaxation of regulatory liquidity requirements and the activation of the Bank's Extended Collateral Term Repo Facility. The key question for the Committee was whether additional stimulus was required over and above these initiatives.

All members expected the announced policy initiatives to boost the supply of credit and provide a fillip to economic activity. Most members felt that the case for adding to this by undertaking further purchases of gilts, financed by the issuance of central bank reserves, was compelling and stronger than at the previous meeting. In the judgement of other members, the balance of risks around the outlook for inflation in the medium term had shifted less. Moreover, they expected the policy initiatives announced during the month to have a sufficiently large impact that no further stimulus was required at this meeting. Seven members of the Committee voted to increase the stock of asset purchases financed by the issuance of central bank reserves by £50 billion, taking the total to £375 billion. Two preferred to maintain the size of the programme at £325 billion. The Committee voted unanimously to maintain Bank Rate at 0.5%.

At its meeting on 1–2 August, the Committee voted to maintain Bank Rate at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £375 billion.

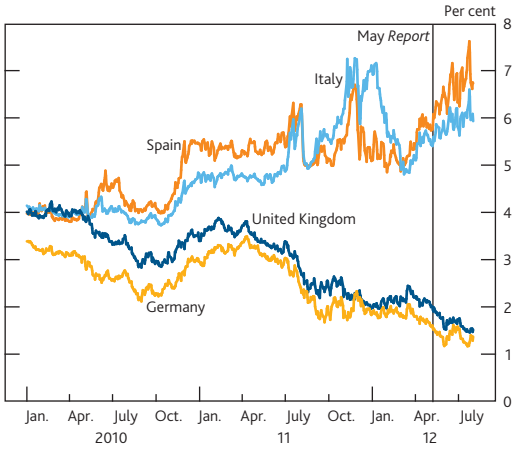
**Chart 1.1** Bank Rate and forward market interest rates[a]




Sources: Bank of England and Bloomberg.

(a) The May 2012 and August 2012 curves are estimated using overnight index swap rates in the fifteen working days to 9 May 2012 and 1 August 2012 respectively.

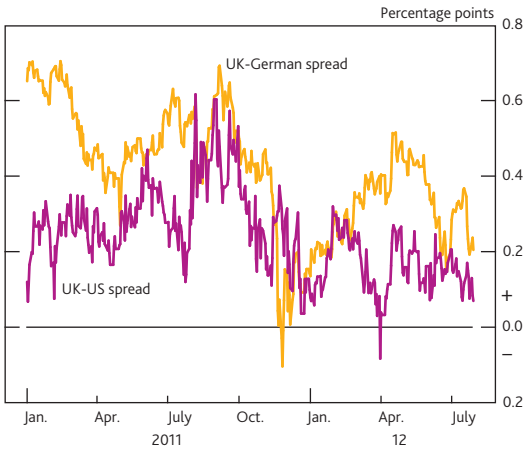
**Chart 1.2** Selected European ten-year government bond yields[a]




Source: Bloomberg.

(a) Yields to maturity on ten-year benchmark government bonds.

**Chart 1.3** UK gilt yields relative to yields on German and US government debt[a]




Sources: Bloomberg and Bank calculations.

(a) Spread between ten-year spot zero-coupon yields.

that reduces borrowing costs for companies and helps to support nominal spending.[1]

The MPC has maintained Bank Rate at 0.5% since the May *Report*. Overnight index swap (OIS) rates have fallen since May, with market participants placing some weight on the possibility of a reduction in Bank Rate: in the run-up to the August *Report*, OIS rates were below 0.5% until 2015 Q3 (**Chart 1.1**).

At its July meeting, the Governing Council of the European Central Bank (ECB) reduced the main refinancing rate by 0.25 percentage points to 0.75%. The ECB also reduced the deposit facility rate by 0.25 percentage points to 0%, leading to falls in euro-area short-term market interest rates.

## 1.2 Financial markets

Financial markets continued to be sensitive to global economic developments, especially tensions in the euro area (Section 2). That was reflected in a wide range of asset prices.

### Euro-area government bonds

Spanish and Italian government bond yields have risen further since the May *Report*, with a particularly marked rise in Spanish yields (**Chart 1.2**). Those movements, in part, reflected the perceived impact on fiscal positions of a further deterioration in growth prospects. Market participants were also concerned about links between banks and sovereigns, including concerns about the cost of recapitalising the Spanish banking sector. The Spanish government's request for assistance to recapitalise their banks, which was subsequently agreed at the EU summit on 28–29 June, had only a short-lived beneficial impact on Spanish government bond yields. Elsewhere, Irish and Portuguese government bond yields have declined somewhat since the May *Report*, but still remain elevated.

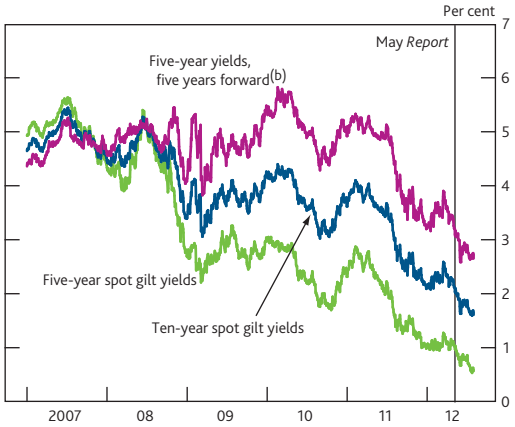
Elevated government bond yields in some euro-area countries continue to reflect concerns about indebtedness and competitiveness. Those concerns have been associated with flows of capital away from vulnerable euro-area countries and towards assets perceived as carrying less credit risk.[2] Such capital flows are likely to have contributed to the falls in German government bond yields seen over the past three months (**Chart 1.2**).

### UK government bonds

Since the May *Report*, ten-year gilt yields have fallen to historic lows (**Chart 1.2**). That partly reflects international developments. Euro-area tensions have contributed to strong demand for UK government bonds, putting downward pressure on their yields.

(1) The transmission mechanism of asset purchases is described in more detail in the box on pages 12–13 of the November 2011 *Report*.
(2) For a further discussion of capital flows away from vulnerable euro-area countries, see page 9 of the June 2012 *Financial Stability Report*.

**Chart 1.4** UK five-year and ten-year nominal spot gilt yields and five-year yields, five years forward[a]




Sources: Bloomberg and Bank calculations.

(a) Zero-coupon yield.
(b) Derived from the Bank's government liability curves.

**Chart 1.5** Sterling exchange rates

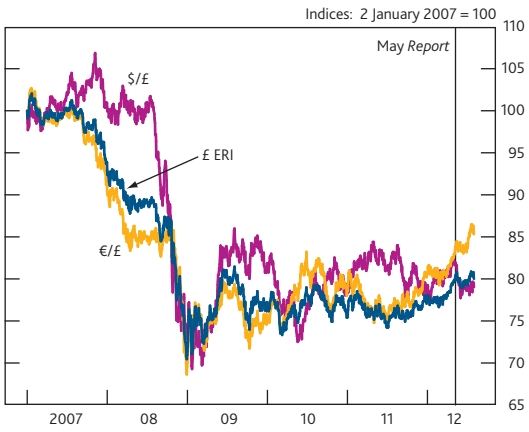
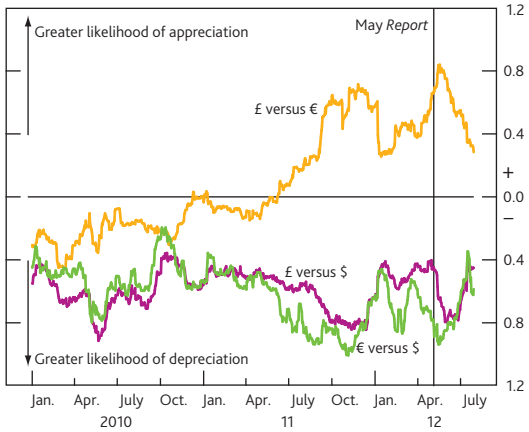



**Chart 1.6** Option-implied asymmetries for selected bilateral exchange rates[a]




Sources: Bloomberg, British Bankers' Association and Bank calculations.

(a) Three-month measure. Option-implied asymmetries are measured by the skewness of the distribution of three-month foreign exchange returns implied by options price data. Returns are defined as the logarithmic difference between current forward rates and the spot rate.

Reductions in gilt yields over the past three months are also likely to reflect domestic factors, such as expectations of further monetary loosening. The expansion of the MPC's asset purchase programme in July was widely anticipated by market participants and is likely to have pushed down gilt yields in advance.[1] Consistent with that, gilt yields fell relative to yields on German government debt in the run-up to the MPC's decision on 5 July (**Chart 1.3**). The relative stability of gilt yields in relation to US government bond yields may have reflected expectations of further policy actions by the Federal Reserve.

Falls in gilt yields may also be associated with concerns about longer-term growth prospects. The implied cost of government borrowing for five years in five years' time has continued to decline since the May *Report* (**Chart 1.4**). Most of the decline observed over the past year has reflected lower real rates, although lower implied forward inflation rates have played a role more recently.

## Exchange rates

The sterling ERI was a little higher in the run-up to the August *Report* than three months earlier, as sterling rose against the euro but fell against the dollar (**Chart 1.5**). The sterling ERI has appreciated by around 5% relative to its 2011 average and is now close to the top of the range that it has moved within following the 25% depreciation between mid-2007 and the end of 2008. That has reflected an appreciation of around 11% against the euro as concerns about the challenges facing the euro area have intensified. But with the UK economic outlook closely linked to developments in the euro area, sterling has fallen by around 3% against the US dollar.

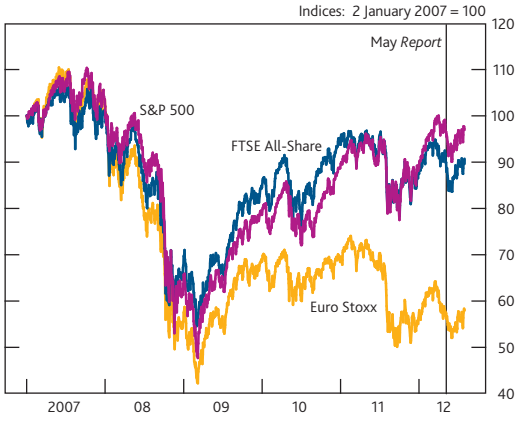
In the period leading up to the August *Report*, information derived from options prices pointed to a greater likelihood of a further appreciation of sterling against the euro than a depreciation (**Chart 1.6**). But the positive skew was less pronounced than three months ago, possibly reflecting the appreciation against the euro over that period. Options prices also suggest that there is a greater likelihood of sterling depreciating than appreciating against the US dollar.

## Equities and corporate bonds

Equity prices fell back internationally around the time of the May *Report* (**Chart 1.7**), as euro-area tensions rose and investors became less willing to hold risky assets. Equity prices have subsequently recovered — possibly reflecting actual and anticipated policy stimulus. For example, in the fifteen working days to 1 August, the FTSE All-Share index was only a little below the level observed in the run-up to the May *Report*. But in contrast to the rise in UK equity prices since 2009,

(1) Evidence on the effects of the Bank's previous asset purchases is discussed in Joyce, M, Tong, M and Woods, R (2011), 'The United Kingdom's quantitative easing policy: design, operation and impact', *Bank of England Quarterly Bulletin*, Vol. 51, No. 3, pages 200–12 and Banerjee, R, Daros, S, Latto, D and McLaren, N (2012), 'Using changes in auction maturity sectors to help identify the impact of QE on gilt yields', *Bank of England Quarterly Bulletin*, Vol. 52, No. 2, pages 129–37.

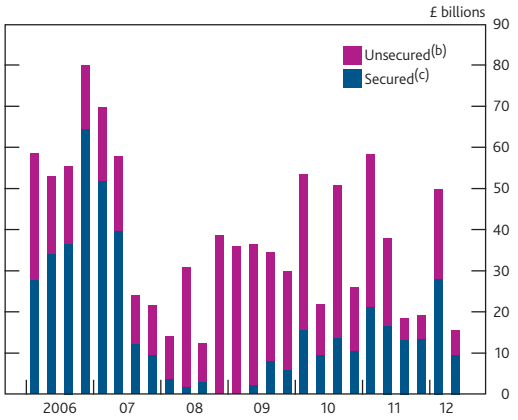
**Chart 1.7** International equity prices[a]




Source: Thomson Reuters Datastream.

(a) In local currency terms.

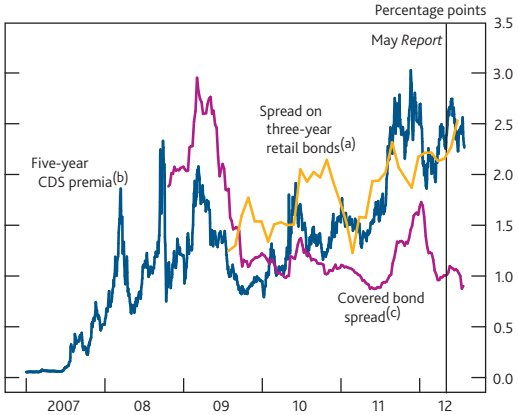
**Chart 1.8** Term issuance by the major UK lenders in public markets[a]




Sources: Bank of England, Dealogic and Bank calculations.

(a) Data are as at 1 August 2012. Data are shown at a quarterly frequency. Includes debt issued by Bank of Ireland, Barclays, Co-operative Financial Services, HSBC, Lloyds Banking Group, National Australia Bank, Nationwide, Northern Rock, Royal Bank of Scotland and Santander UK. Term issuance refers here to securities with an original contractual maturity or earliest call date of at least 18 months.
(b) Comprises medium-term notes, subordinated debt, unguaranteed senior debt and guaranteed senior debt issued under HM Treasury's Credit Guarantee Scheme.
(c) Comprises covered bonds, CMBS, RMBS and other ABS.

**Chart 1.9** UK banks' indicative longer-term funding spreads




Sources: Bank of England, JPMorgan Chase & Co., Markit Group Limited and Bank calculations.

(a) Sterling only. Spread over the three-year swap rate. The three-year retail bond rate is a weighted average of rates from banks and building societies within the Bank of England's normal quoted rate sample with products meeting the specific criteria (see www.bankofengland.co.uk/statistics/Pages/iadb/notesiadb/household_int.aspx).
(b) The data show a simple average of the five-year CDS premia of Barclays, HSBC, Lloyds Banking Group, Nationwide, Royal Bank of Scotland and Santander UK.
(c) From January 2012 onwards, the data show a weighted average of the spread between covered bonds of any maturity issued by UK banks and equivalent-maturity swap rates, weighted by the outstanding value of each bond. Before January 2012, the data show a simple average and include bonds with a maturity of between three and five years only.

euro-area equity prices were barely higher than their mid-2009 levels.

Bond yields for UK non-financial investment-grade companies were lower in the run-up to the August *Report* than at the time of the May *Report*. That reflects a reduction both in government bond yields and in corporate bond spreads — the compensation required by investors for holding corporate bonds relative to gilts. Issuance in corporate bond markets has been robust in 2012 (Section 1.3), supported by the MPC's asset purchase programme, which helps boost investor demand for corporate debt and equity.

## 1.3 The banking sector and credit conditions

Over the past year, strains in bank funding markets have led to a tightening in credit conditions. In June, the Bank and the Government announced plans to introduce the Funding for Lending Scheme (FLS). The Scheme should help to ease credit conditions for households and companies by providing a cheaper source of bank funding and encouraging banks to increase lending. The FLS and its possible effects are discussed in a box on pages 14–15.

### Bank funding

UK banks' issuance of debt in public markets was relatively low in 2012 Q2 (**Chart 1.8**). But that followed strong issuance in Q1 — indeed, some of the major UK banks had already completed a significant proportion of their planned public market debt issuance for 2012 in Q1. Moreover, funds were raised from the ECB's longer-term refinancing operations through UK banks' foreign subsidiaries during Q1. And private markets continued to be an important source of funding for UK banks over the first half of the year. Given that a number of banks planned to reduce the size of their balance sheets during 2012 and to increase their reliance on retail deposits as a source of funding, issuance in public markets during the rest of the year may be largely opportunistic, when the cost of funding and conditions are favourable.

Developments in the euro area have been a key driver of UK banks' funding costs. Some measures of banks' longer-term funding costs, relative to reference rates, rose in Q2: UK banks' average five-year credit default swap (CDS) premia rose to similar levels seen in 2011 H2; and spreads on retail deposits moved above 2011 levels (**Chart 1.9**). Covered bond spreads, however, declined slightly in Q2. Elevated funding costs make it less attractive for banks to increase lending because they reduce net interest margins, absent a repricing of loans. But under the FLS, participating banks will be able to fund new lending at a lower cost than current market rates.

Since the May *Report*, a number of policy initiatives have been implemented or recommended to ease current and prospective tensions within the banking system. The activation of the

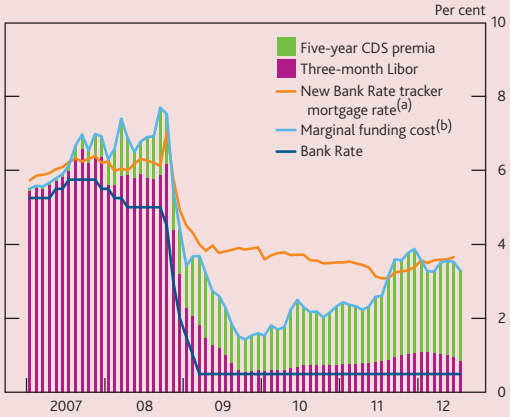
## The Funding for Lending Scheme

The Funding for Lending Scheme (FLS) was launched by the Bank and the Government on 13 July. UK banks' funding costs have been pushed up over the past year by developments in the euro area, and the flow of credit through the banking system has remained impaired. The aim of the FLS is to provide strong incentives for banks, building societies and related specialist lenders to expand lending to UK households and companies. This box explains why the FLS has been launched and how it will encourage banks to lend more.(1)

### Why was the FLS launched?

Over the past year, UK banks' funding costs have risen, in large part reflecting developments in the euro area. One proxy for UK banks' marginal funding costs — the sum of three-month Libor and average CDS premia — had increased by around 100 basis points between August 2011 and June 2012. As explained in previous *Reports*, rises in banks' funding costs put upward pressure on the interest rates banks charge on new loans as they seek to maintain margins: the average interest rate on a new Bank Rate tracker mortgage was nearly 60 basis points higher in June 2012 than in August 2011 (**Chart A**).(2) With banks' funding costs remaining elevated, the 2012 Q2 *Credit Conditions Survey*, which was conducted prior to the announcement of the Scheme, suggested that mortgage rates and corporate lending rates were likely to rise further in Q3 (Section 1.3). In addition to higher loan rates, strains in bank funding markets may have limited access to credit for some households and companies.

**Chart A** New Bank Rate tracker mortgage rate, Bank Rate and an estimate of banks' marginal funding cost




Sources: Bank of England, British Bankers' Association, Markit Group Limited and Bank calculations.

(a) On mortgages with a loan to value ratio of 75%. Data are to June 2012.
(b) The estimated marginal funding cost of extending variable-rate sterling-denominated loans. This is calculated as the sum of three-month Libor plus a weighted average of the five-year CDS premia of the major UK lenders used in **Chart 1.9**. Weights are based on banks' shares of new household secured lending, and for July 2012, the weights are fixed at June 2012 values. Marginal funding costs may vary across lenders. Lenders with a greater proportion of retail funding may also consider the cost of deposits when assessing their marginal funding cost.

### How will the FLS work?

Over the 18 months to the end of January 2014, the Bank will lend UK Treasury bills to banks for up to four years for a fee. As security against that lending, banks will have to provide collateral, which can include loans to businesses and households. Banks can then use the Treasury bills that they access in the Scheme to borrow money from markets at rates close to the expected path of Bank Rate. The total direct cost of funding for a bank using the FLS therefore combines those rates with the fee paid to the Bank. Alternatively, banks can retain those Treasury bills as liquid assets and meet cash outflows for lending using cash reserves held at the Bank.

Participating institutions can borrow up to 5% of their existing stock of loans to UK households and companies — as at end-June 2012 — plus any net expansion of their lending to the UK real economy to the end of 2013. For example, a bank with a stock of loans totalling £100 billion in June 2012 that extended net lending by a further £7 billion by the end of 2013 would be eligible to borrow a total of £12 billion under the Scheme. Five per cent of the stock of existing loans to the UK non-financial sector is equivalent to around £80 billion. There is no upper limit on the size of individual bank or aggregate banking sector borrowing under the Scheme. Indeed, if banks issue new loans they can use those as collateral to obtain further funding under the FLS.

The price at which each institution can borrow in the FLS will depend on its net lending to the UK real economy between 30 June 2012 and the end of 2013. For banks that maintain or increase their stock of net lending, the fee will be 0.25% per year on the amount borrowed. If a bank's stock of lending declines, the fee it pays will increase proportionately, adding 0.25 percentage points for each 1% decline in net lending up to a maximum fee of 1.5% for banks that contract their stock of lending by 5% or more.

### How will the FLS help to support the economy?

The FLS will substantially reduce funding costs for banks. There is likely, however, to be significant variation across individual banks. The reduction in funding costs relative to current market conditions for each of the major UK banks, if they used the Treasury bills to borrow funds and if they were to maintain their stock of net lending and so incur the 0.25% fee, is likely to range between around 100 to 200 basis points. There are, however, a number of caveats around such a calculation. For instance, the haircuts taken on the eligible collateral used as security in the Scheme are greater than those taken on similar collateral in the open market. But the pool of eligible collateral under the Scheme is also wider than that typically accepted in secured funding markets — for example, it includes loans to small businesses.

Individual banks are in different positions, but participating banks will be able to fund new lending at a lower cost than current market rates. That should encourage banks that had planned to expand lending to do so even more. And the fees charged in the FLS encourage those banks that were planning

to reduce their lending to cut back by less than would otherwise have been the case. Lower bank funding costs should feed through into lower interest rates on new loans to households and companies and increased credit availability. But rates on existing loans are less likely to be affected, in contrast to the impact of movements in Bank Rate. Easier access to cheaper new bank borrowing should boost consumption and business and housing investment. In turn, that additional spending should create jobs and raise incomes.

## How will we know if the FLS has worked?

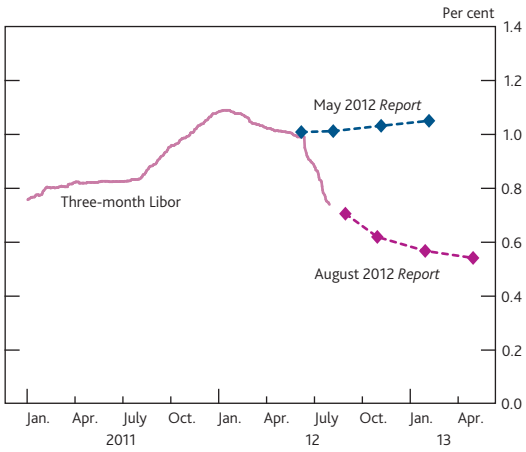
Relative to the situation in which the FLS had not been launched, the Scheme should increase the quantity and lower the price of lending to households and businesses and could also improve the terms attached to loans. But the exact impact will be difficult to quantify because it is difficult to know what would have happened in the Scheme's absence.

The Scheme should help to limit any further rises in the cost of new bank lending — indeed, several banks have already announced plans to reduce rates on some products. That should help to stimulate more borrowing. The timing and extent of pass-through to lending rates is uncertain. For example, it is possible that some banks raising funding through the Scheme will take the opportunity to boost profits and capital rather than lowering lending rates, although healthier capital positions would still yield a longer-term benefit. Lending rates will also be affected by the extent to which funding costs outside the FLS fall back.

Bank lending to UK households and companies should be higher than in the absence of the FLS. Prior to the announcement of the Scheme, Bank staff's assessment was that UK bank lending was more likely to decline than increase over the coming 18 months, in part reflecting the fact that some banks had announced plans to shrink new lending over the next few years. The FLS will help to prevent that outcome. But the extent to which the Scheme boosts new lending will also depend on other factors, including how much households and companies want to borrow at the available terms and conditions.

(1) An explanatory note with more details is available at www.bankofengland.co.uk/markets/Documents/explanatory_notefls120713.pdf.
(2) For more details see the box on pages 16–17 of the August 2011 *Inflation Report*.

**Chart 1.10** Three-month spot and forward Libor rates(a)




Sources: Bloomberg and British Bankers' Association.

(a) The dashed lines for May 2012 and August 2012 show average forward rates derived from forward rate agreements over the fifteen working days to 9 May 2012 and 1 August 2012 respectively.

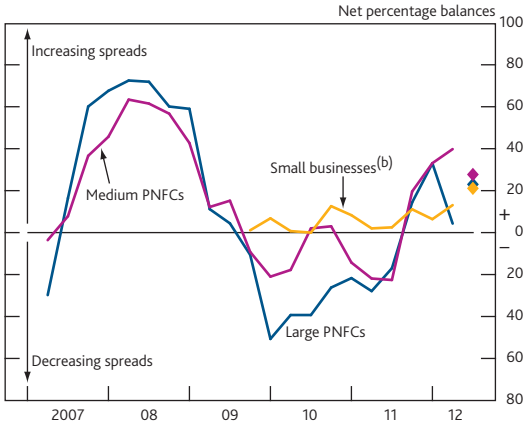
Extended Collateral Term Repo (ECTR) Facility provides the banking system with greater liquidity insurance in times of stress. That may have contributed to an easing in UK banks' short-term funding conditions. Three-month Libor rates fell back in June, around the commencement of the ECTR Facility and the announcement of the FLS, and traded forward rate agreements are pricing in further falls (**Chart 1.10**). As well as alleviating upward pressure on new loan rates, the rates paid on existing corporate loans that are directly linked to Libor should fall.

At its June meeting, the Financial Policy Committee (FPC) recommended that the Financial Services Authority (FSA) consider whether adjustments to microprudential liquidity guidance were appropriate, in light of the additional liquidity insurance provided by the ECTR Facility. The FPC also recommended that the FSA make clear to banks that they were free to use their regulatory liquid asset buffers in the event of liquidity stress. The implementation was a matter for the FSA, but the FPC judged it important to send a clear signal of liquidity guidance having been loosened. The effect of a loosening of such guidance might well vary from bank to bank, meaning that its impact on the rest of the economy is difficult to predict. It is possible, however, that some banks might use the funding currently supporting such liquid assets to finance greater lending to households and businesses.

## Corporate sector credit conditions

Evidence from the Bank's *Credit Conditions Survey* indicated that spreads on corporate loans over reference rates rose in 2012 Q2 (**Chart 1.11**). That is likely to reflect past increases in wholesale funding costs. Those increases in spreads reversed some of the

**Chart 1.11** *Credit Conditions Survey*: changes in spreads on corporate loans by company size[a]




(a) Weighted responses of lenders. Changes over the past three months. The diamonds show lenders' expectations for the next three months, reported in the 2012 Q2 survey.
(b) Data are only available from 2009 Q4.

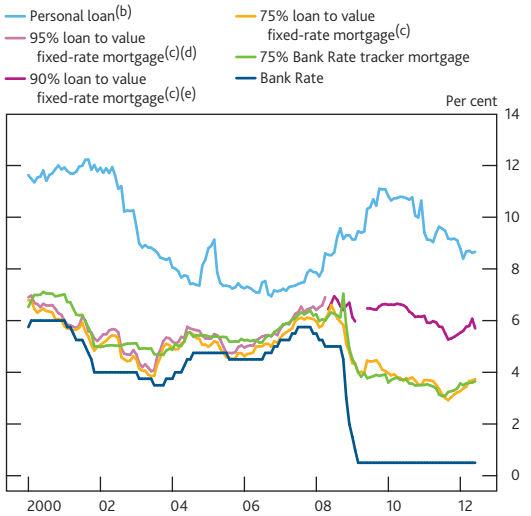
**Table 1.A** PNFCs' net external finance raised[a]

**£ billions**

| | Quarterly averages | | | 2012 | |
|---|---|---|---|---|---|
| | 2003–08 | 2009–2011 H1 | 2011 H2 | Q1 | Q2 |
| Loans | 11.5 | -8.0 | -0.6 | -9.7 | -1.0 |
| Bonds[b][c] | 3.4 | 2.2 | 3.7 | 6.7 | 3.8 |
| Equities[b] | -2.1 | 3.6 | -2.9 | -2.1 | -2.7 |
| Commercial paper[b] | 0.0 | -0.7 | 0.1 | 0.0 | -0.2 |
| Total[d] | 12.7 | -2.8 | 0.4 | -4.8 | -2.3 |

(a) Includes sterling and foreign currency funds.
(b) Non seasonally adjusted.
(c) Includes stand-alone and programme bonds.
(d) As component series are not all seasonally adjusted, the total may not equal the sum of its components.

**Chart 1.12** Bank Rate and quoted interest rates on new household borrowing[a]




(a) Sterling-only end-month average quoted rates. The Bank's quoted interest rates series are weighted averages of rates from a sample of banks and building societies with products meeting the specific criteria (see www.bankofengland.co.uk/statistics/Pages/iadb/notesiadb/household_int.aspx). The final observations are for June 2012.
(b) Quoted interest rate on a £10,000 personal loan.
(c) Two-year fixed-rate mortgage.
(d) Series has not been published since April 2008 as fewer than three products have been offered in that period.
(e) Series is only available on a consistent basis back to May 2008, and is not published for March to May 2009 as fewer than three products were offered in that period.

falls for large and medium-sized companies seen in 2010 and 2011; but lenders have not reported a reduction in spreads on bank loans to small companies at any point since 2009 Q4. At the time of the survey — prior to the announcement of the FLS — a further substantial widening in spreads on loans to all sizes of business was expected in Q3. But the FLS should act against that somewhat and also help to ease non-price terms.

Tight credit conditions may have contributed to continued weakness in bank lending to companies in 2012 H1 (**Table 1.A**).[1] Increases in spreads on bank borrowing (**Chart 1.11**), combined with falls in the cost of bond finance, may have continued to encourage some larger companies with access to capital market finance to substitute away from bank loans: corporate bond issuance was robust in H1, with some new issuers accessing the market. But UK private non-financial corporations (PNFCs) bought back more equity than they issued in H1. And, given net repayments of bank loans, PNFCs still repaid more finance in total than they raised in H1 (**Table 1.A**).

## Households' credit conditions

Elevated funding costs continued to be passed through into higher interest rates on many mortgage products in Q2 (**Chart 1.12**). Prior to the introduction of the FLS, lenders' responses to the *Credit Conditions Survey* suggested that mortgage rates would continue to increase in Q3. That is likely to have reflected banks intending to restore margins: despite past rises in mortgage rates, the margin on new lending appears to have been squeezed by higher funding costs (**Chart A** in the box on pages 14–15). By providing banks with access to cheaper funding, the FLS should help to ease the upward pressure on mortgage rates. Indeed, following the publication of details of the FLS, several major banks announced plans to reduce interest rates on some mortgage products.

By contrast, recent rises in funding costs have not generally been associated with higher interest rates on households' unsecured borrowing. The cost of a £10,000 personal loan has edged down since 2010 (**Chart 1.12**), and lenders responding to the *Credit Conditions Survey* did not expect any increase in spreads on unsecured loans in Q3. Lenders reported that default rates and losses on those loans continued to be lower than anticipated. That may have put downward pressure on unsecured loan rates, helping to offset any upward pressure from elevated funding costs.

The tightening in credit conditions since the onset of the financial crisis has contributed to weak growth in the stock of loans to individuals (**Chart 1.13**). In 2012 Q2, unsecured debt growth remained subdued. Indeed, excluding student loans, the stock of unsecured debt remains lower than in 2009.[2] Secured debt growth also remained muted in Q2.

(1) For a fuller discussion of lending to small and medium-sized enterprises and large businesses see *Trends in Lending*, July 2012.
(2) For more details see Srinivasan, S (2012), 'A new measure of consumer credit', *Bank of England Monetary and Financial Statistics*, July, available at www.bankofengland.co.uk/statistics/Documents/ms/articles/art1jul12.pdf.

**Chart 1.13** Loans to individuals

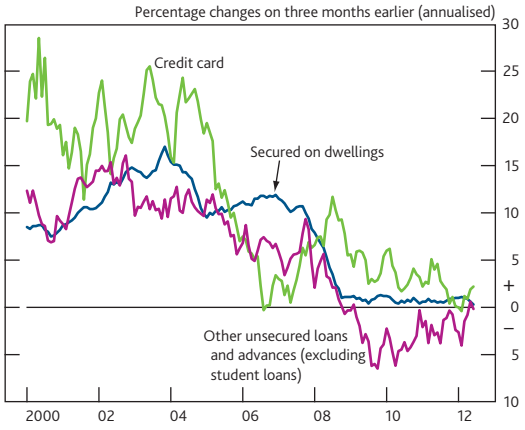
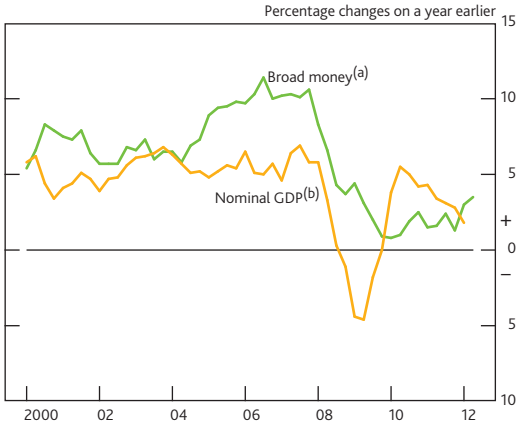
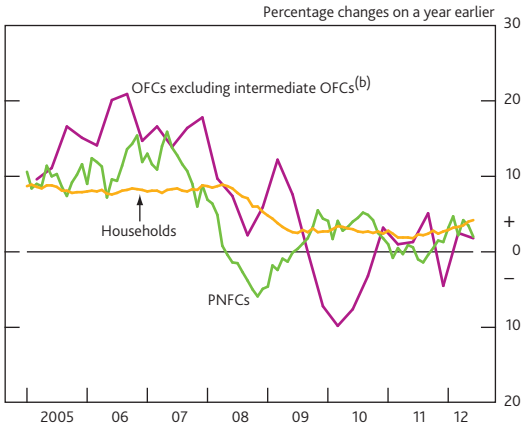



**Chart 1.14** Broad money and nominal GDP




(a) M4 excluding intermediate other financial corporations (OFCs). Intermediate OFCs are: mortgage and housing credit corporations; non-bank credit grantors; bank holding companies; securitisation special purpose vehicles; and other activities auxiliary to financial intermediation. In addition to the deposits of these five types of OFCs, sterling deposits arising from transactions between banks or building societies and 'other financial intermediaries' belonging to the same financial group are excluded from this measure of broad money. The latest observation is 2012 Q2.
(b) At current market prices. The latest observation is 2012 Q1.

**Chart 1.15** Sectoral broad money(a)




(a) Monthly data unless otherwise specified.
(b) Quarterly data. Intermediate OFCs are defined as in **Chart 1.14**.

Subdued secured debt growth since 2008 has been associated with subdued housing market activity. In 2012 Q2, housing transactions and mortgage approvals fell back following the pickup in Q1 that was related, in part, to a temporary stamp duty exemption for some first-time buyers. To the extent that the FLS eases household credit conditions, it could support housing market activity. House prices have been broadly unchanged over the past two years, such that real house prices have continued to decline.

## 1.4 Money

Four-quarter growth in broad money has picked up slightly in the past few quarters, reaching 3.5% in 2012 Q2. Although broad money growth remains subdued relative to its average in the decade prior to the recession, money grew faster than nominal GDP in 2012 Q1 for the first time since 2009 (**Chart 1.14**). Within that, household and corporate money growth has picked up since late 2011 (**Chart 1.15**): those additional money balances could support nominal spending growth if households and companies choose to spend them.

The expansion of the MPC's asset purchase programme between October 2011 and April 2012 will have boosted broad money growth. And the £50 billion expansion of the asset purchase programme announced in July should provide a further boost.

Nonetheless, broad money only increased by around £30 billion over the nine months to June 2012, while the Bank purchased around £125 billion of gilts over that period. It is difficult, however, to ascertain how weak money growth would have been in the absence of the Bank's asset purchases. And, as discussed in the May *Report*, there are a number of reasons why the Bank's asset purchases may not have fed through into stronger money growth. For example, some banks have reduced their holdings of gilts. If those banks sold gilts to the Bank and retained the proceeds, that will not have added to broad money. Neither will higher sterling deposits built up by non-residents, some of which may reflect fewer gilt purchases than would have occurred in the absence of the MPC's asset purchases. Additionally, some companies may have used the proceeds raised from greater corporate bond issuance to pay down bank debt rather than to build up deposits (Section 1.3).

The implications of those different explanations for weak money growth vary, but the MPC's asset purchases should still support spending. For example, non-residents may, over time, reinvest their sterling deposits into other sterling assets, which would have the same effect as if the UK non-bank private sector had built up deposits and then bought those assets. By the same token, companies with relatively lower levels of bank debt may be better placed to attract non-bank external finance to fund investment projects.

# 2 Demand

UK GDP was broadly flat over the four quarters to 2012 Q1, and underlying growth was weak in Q2. Subdued activity in part reflects the impact of the significant competitiveness and indebtedness challenges facing some euro-area countries. Most directly, the resultant weak growth in the euro area has, alongside slowing growth elsewhere in the world, held back UK export growth. Other factors have also weighed on UK demand, including a real income squeeze, tight credit conditions and the fiscal consolidation. As a consequence, UK domestic demand grew weakly over the year to 2012 Q1. In particular, household spending fell, although business investment boosted GDP growth.

**Table 2.A** Expenditure components of demand[a]

**Percentage changes on a quarter earlier**

| | Averages | | 2011 | | | | 2012 |
|---|---|---|---|---|---|---|---|
| | 1998–2007 | 2008–10 | Q1 | Q2 | Q3 | Q4 | Q1 |
| Household consumption[b] | 0.9 | -0.4 | -0.8 | -0.5 | -0.7 | 0.5 | -0.1 |
| Private sector investment | 1.1 | -2.1 | -4.3 | 7.0 | 0.3 | 1.1 | 2.4 |
| *of which, business investment* | *1.2* | *-1.8* | *-7.2* | *11.2* | *2.1* | *-0.8* | *1.9* |
| *of which, private sector dwellings investment* | *1.6* | *-2.4* | *1.3* | *-0.3* | *-3.2* | *4.9* | *3.4* |
| **Private sector final domestic demand** | **0.9** | **-0.7** | **-1.4** | **0.7** | **-0.5** | **0.6** | **0.3** |
| Government consumption and investment[c] | 0.8 | 0.4 | 1.6 | -2.8 | 0.1 | -0.1 | 1.6 |
| **Final domestic demand** | **0.9** | **-0.4** | **-0.6** | **-0.2** | **-0.4** | **0.4** | **0.7** |
| Change in inventories[d][e] | 0.0 | -0.1 | 0.0 | 0.2 | 0.7 | -0.8 | -0.4 |
| Alignment adjustment[e] | 0.0 | 0.0 | -0.2 | 0.6 | 0.1 | -0.4 | -0.2 |
| **Domestic demand** | **0.9** | **-0.5** | **-0.8** | **0.6** | **0.4** | **-0.8** | **0.1** |
| 'Economic' exports[f] | 1.1 | 0.3 | 1.7 | -3.0 | 0.7 | 3.2 | -1.7 |
| 'Economic' imports[f] | 1.4 | -0.3 | -2.2 | -0.8 | 0.2 | 1.7 | -0.3 |
| **Net trade[e][f]** | **-0.1** | **0.2** | **1.2** | **-0.7** | **0.1** | **0.4** | **-0.4** |
| **Real GDP at market prices** | **0.8** | **-0.3** | **0.5** | **-0.1** | **0.6** | **-0.4** | **-0.3** |

(a) Chained-volume measures.
(b) Includes non-profit institutions serving households.
(c) Government investment data have been adjusted by Bank staff to take account of the transfer of nuclear reactors from the public corporation sector to central government in 2005 Q2.
(d) Excludes the alignment adjustment.
(e) Percentage point contributions to quarterly growth of real GDP.
(f) Excluding the impact of missing trader intra-community (MTIC) fraud. Official MTIC-adjusted data are not available for exports, so the headline exports data have been adjusted for MTIC fraud by an amount equal to the ONS's imports adjustment.

Weak UK output growth over the past year (**Table 2.A**) has reflected the impact of a number of headwinds. One factor bearing down on UK activity has been slowing global growth (Section 2.2). Output in the euro area was flat over the four quarters to 2012 Q1, in part reflecting falling activity in countries grappling with the twin challenges of reducing indebtedness and regaining competitiveness. Growth has also slowed to below-average rates in some emerging economies and has been modest in the United States. The slowing in global growth has weighed on UK exports, which fell over the year to 2012 Q1.

It is likely that UK domestic demand has also been restrained by euro-area developments over the past year, as well as being held back by a squeeze on household real incomes and the fiscal consolidation at home (Section 2.1). The risk of a disorderly outcome in the euro area is likely to have affected household and business confidence adversely. It has also been associated with stresses in bank funding markets, which have contributed to tighter credit conditions (Section 1).

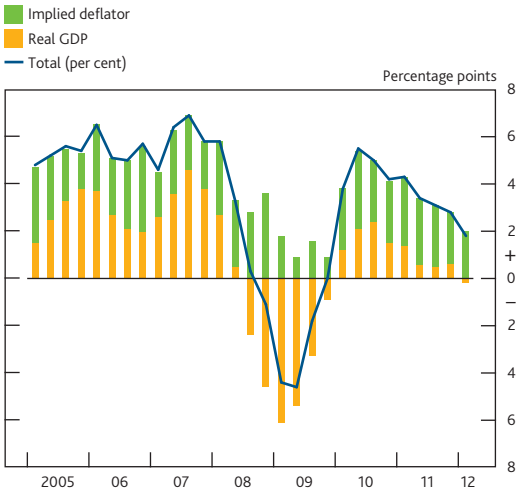
The weakness of real GDP growth has been associated with low nominal spending growth (**Chart 2.1**). Nominal spending grew by around 2% in the year to 2012 Q1 — well below its historical average growth rate. Real output is provisionally estimated to have continued to fall in 2012 Q2, although that fall is likely to have reflected, in large part, the impact of the additional bank holiday for the Diamond Jubilee (Section 3).

## 2.1 Domestic demand

### Household spending

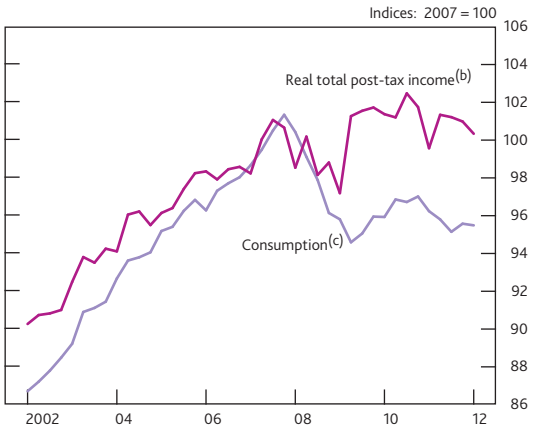
Household spending growth was weak, on average, in 2011 Q4 and 2012 Q1, although growth was somewhat higher than in the first three quarters of 2011 (**Table 2.A**). But indicators are consistent with a decline in household spending in 2012 Q2. Retail sales data suggest that consumption of goods may have

**Chart 2.1** Contributions to four-quarter growth in nominal GDP[a]



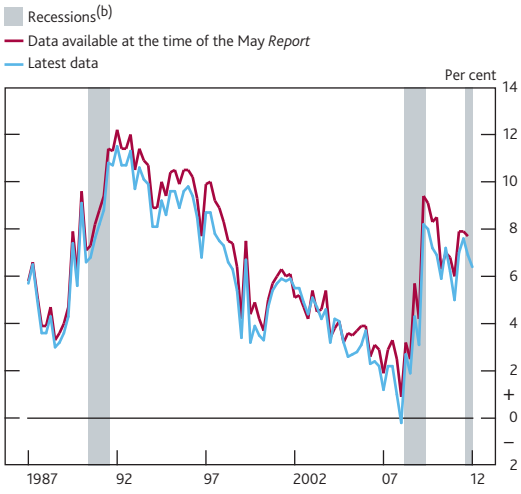

(a) At market prices. Contributions may not sum to total due to rounding.

**Chart 2.2** Real household consumption and income[a]




(a) Includes non-profit institutions serving households.
(b) Total available household resources, deflated by the consumer expenditure deflator.
(c) Chained-volume measure.

**Chart 2.3** Household saving ratio[a]




(a) Percentage of household post-tax income.
(b) Recessions are defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recessions are assumed to end once output began to rise.

fallen, although spending has probably been affected by temporary factors, such as the unusually wet weather. Services consumption fell by 0.6% in Q1. And although the *CBI Service Sector Survey* suggests that growth may have picked up somewhat in Q2, the survey balance remains below its historical average.

Consumption in 2012 Q1 was only a little above its trough in 2009 and was still almost 6% below its pre-recession peak (**Chart 2.2**). It is likely that weak real income growth has been an important driver of subdued household spending growth: over the period since 2007, real post-tax income has barely grown. That has reflected the modest nominal income growth associated with the financial crisis and subsequent recession, and a squeeze from elevated price pressures — VAT, energy and import prices. As that squeeze eases, growth of household real incomes should gradually pick up, supporting consumer spending growth, although nominal income growth is likely to remain muted for some while yet.

How much households choose to save also matters for consumer spending. The estimated level of the household saving ratio was revised down slightly in the 2012 *Blue Book* (see the box on page 20), although the broad evolution of household saving over the past few years was unchanged (**Chart 2.3**). The saving ratio increased sharply during 2008 and 2009 and remains well above its average level in the run-up to that recession, although it is estimated to have fallen back a little over the past couple of quarters.

Households have faced a number of adverse shocks over the past four years that may have led them to save more. For example, as a result of the recession, households might expect their earnings to grow more slowly in the future, which may have prompted them to spend less in order to smooth their consumption over time. Households' uncertainty about their employment and earnings prospects has probably also risen, and some may have responded by increasing their precautionary savings. In addition, tighter credit conditions may have restricted the amount that some households have been able to borrow. And, at the same time, some households may have sought to reduce their debts, perhaps because they felt more vulnerable to future adverse events. Moreover, other factors, such as the need to make more provision for future retirement, may also have raised household saving.

If households have completely adjusted to those shocks, the saving ratio may fall back, boosting consumption growth relative to income growth for a period. Alternatively, if households have not yet fully adjusted — perhaps because the income squeeze has prevented them from saving — the saving ratio could remain at its current level or rise further. The medium-term outlook for household saving and spending is discussed in Section 5.

## Revisions to the National Accounts

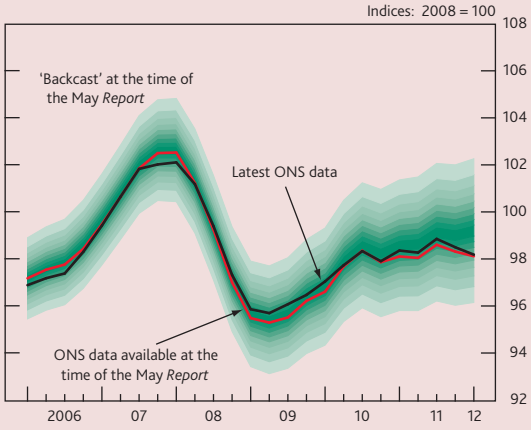
The *Blue Book* is an annual ONS publication of National Accounts data in which a wider range of information than is used to produce early estimates — for example, annual earnings data from Her Majesty's Revenue and Customs (HMRC) — and any methodological changes are incorporated into the data set. This box summarises the revisions to the data that resulted from the 2012 *Blue Book* process.(1)

The 2012 edition of the *Blue Book* contained only modest changes to statistical methods. The most significant change was the introduction of a new method for measuring insurance services output. That change has led to revisions back to 1987. In addition, there were revisions to data covering the period between 1948 and 1996, reflecting the implementation of the method of deflation applied from 1997 in *Blue Book 2011*. As a result of that change, annual GDP growth has been revised up by an average of 0.3 percentage points between 1949 and 1997, as it was over the period between 1998 and 2006 in *Blue Book 2011*.(2)

There was relatively little news on GDP over the period since 1997 resulting from the revisions. Annual GDP growth was, on average, not revised over the decade prior to the financial crisis. But there were upward revisions to growth over 2008 and 2009, which, taken together, imply that the peak-to-trough fall in GDP during the 2008/09 recession was 6.3% rather than 7.1%. And annual GDP growth in 2010 was revised down. But the broad shape of the recession and recovery is little changed.

Overall, cumulative GDP growth since 2008 has been revised up slightly (**Chart A**). That revision was a little smaller than the MPC's central expectation at the time of the May *Report*.

**Chart A** MPC's evaluation of GDP at the time of the May *Report*, ONS data at that time and latest ONS data(a)




Sources: ONS and Bank calculations.

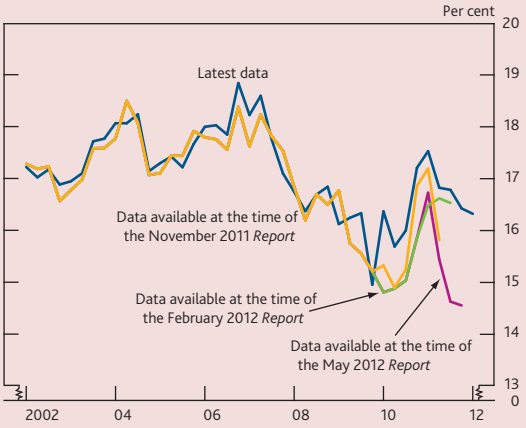
(a) Chained-volume measures at market prices. The fan chart depicts an estimated probability distribution for GDP over the past. It can be interpreted in the same way as the fan charts in Section 5. Data are to 2012 Q1.

Henceforth, the ONS is unlikely to receive new information about GDP in 2009, so the MPC's new central backcast over that year, and the preceeding years, is set equal to the current vintage of data. But the ONS will continue to receive new information about the period since 2009.

The distribution around the central backcast is a little wider than it was in the May *Report*. That widening reflects the sizable revisions to estimates of growth over 2008 being included in the calibration of the fan chart around the backcast for the first time.

There were only relatively small revisions to the expenditure components of GDP, but there were quite sizable revisions to the corporate profit share (**Chart B**). In particular, the profit share was revised up by 1.4 percentage points, on average, in 2010 and 2011, suggesting that profits were squeezed by less than was previously thought. But these data remain uncertain.

**Chart B** Corporate profit share (excluding financial corporations and the oil sector)(a)




Sources: ONS and Bank calculations.

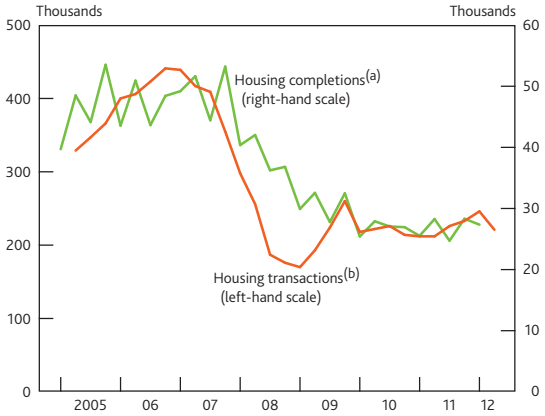
(a) PNFCs' (excluding continental shelf companies) gross trading profits (excluding the alignment adjustment), divided by gross value added at factor cost.

There were also small revisions to the household saving ratio. New information from HMRC suggests that compensation of employees in 2010 was lower than previously estimated. And the new methodology for measuring insurance output has led to downward revisions to household incomes since 1987 — with financial companies' incomes estimated to have been correspondingly higher. As a consequence, the household saving ratio has been revised down slightly in most years (**Chart 2.3**).

(1) For further details on the changes see Everett, G (2012), 'Content of UK national accounts: the Blue Book 2012', available at www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/national-accounts/methodology-and-articles/2011-present/content-of-blue-book-2012/index.html and Myers, M, Lee, P and Morgan, D (2012), 'Impact of changes in the National Accounts and economic commentary for 2012 quarter 1', available at www.ons.gov.uk/ons/rel/naa2/quarterly-national-accounts/q1-2012/art---q1-2012.pdf.

(2) For more information about this change, see the box on pages 20–21 of the November 2011 *Report*.

## Chart 2.4 Housing transactions and house building




Sources: Department for Communities and Local Government, Her Majesty's Revenue and Customs and Bank calculations.

(a) Number of permanent dwellings in the United Kingdom started/completed by private enterprises up to 2011 Q1. Data since then have been grown in line with data for England. Data are non seasonally adjusted. The latest observation is 2012 Q1.
(b) Number of residential property transactions in the United Kingdom with a value of £40,000 or above per quarter. The latest observation is 2012 Q2.

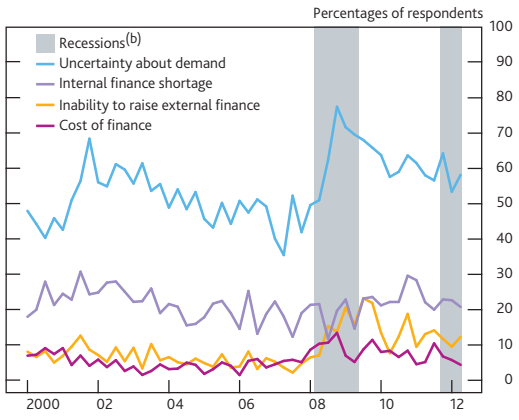
## Table 2.B Business investment and surveys of investment intentions

| | Averages | | | | | 2012 | |
|---|---|---|---|---|---|---|---|
| | 1999–2007 | 2008–09 | 2010 | 2011 H1 | 2011 H2 | Q1 | Q2 |
| **Business investment**(a) | | | | | | | |
| Percentage change on a quarter earlier | 0.8 | -3.3 | 1.3 | 2.0 | 0.7 | 1.9 | n.a. |
| **Investment intentions**(b) | | | | | | | |
| Agents' scores(c) | 1.5 | -1.6 | 1.1 | 1.8 | 1.0 | 0.8 | 0.8 |
| BCC(d) | 14 | -10 | 1 | 6 | 3 | 10 | 7 |
| CBI(e) | -8 | -29 | -6 | 3 | -8 | -8 | -4 |

Sources: Bank of England, BCC, CBI, CBI/PwC and ONS.

(a) Chained-volume measure.
(b) Sectoral surveys weighted using shares in real business investment.
(c) End-quarter observations on a scale of -5 to +5, with positive scores indicating an increase in investment over the next twelve months. Data cover the manufacturing and services sectors.
(d) Net percentage balance of respondents reporting that they have increased planned investment in plant and machinery over the past three months. Data are non seasonally adjusted and cover the non-services and services sectors.
(e) Net percentage balance of respondents reporting that they expect to increase investment in plant and machinery over the next twelve months. Data cover the manufacturing, financial, retail and consumer/business services sectors.

## Chart 2.5 Factors likely to hold back investment(a)




Sources: CBI, CBI/PwC and ONS.

(a) Manufacturing, financial services and consumer/business services surveys weighted by shares in real business investment. Companies are asked for factors likely to limit capital expenditure authorisations over the next twelve months. Financial services companies are not asked to distinguish between a shortage of internal finance and an inability to raise external finance, so their single response is used for both questions.
(b) Recessions are defined as in **Chart 2.3**.

## Dwellings investment

Private sector dwellings investment rose by over 3% in 2012 Q1 (**Table 2.A**). That is unlikely to reflect increased house building as housing completions were broadly flat (**Chart 2.4**). But dwellings investment also includes spending on services associated with the sale and purchase of property — for example, commission paid to estate agents — so it was probably boosted in Q1 by a rise in housing transactions (**Chart 2.4**).(1) That rise was, however, at least in part due to the boost associated with a temporary stamp duty exemption for some first-time buyers (Section 1). Housing transactions fell back in Q2, which may have pushed down dwellings investment, but the introduction of the Funding for Lending Scheme (FLS) should support transactions in the future.

## Business spending

Business investment growth was above average in 2012 Q1 (**Table 2.B**). In part, that reflected investment in the electricity, gas and water sector, which rebounded after falling sharply in 2011 Q4. Surveys of investment intentions provide mixed evidence on the outlook for business investment, but suggest that a marked recovery in capital spending is unlikely in the near term (**Table 2.B**).

Although business investment has recovered a little over the past couple of years, it remains well below its pre-crisis level. That is likely to reflect a number of factors, including the impact of spare capacity. On balance, companies appear to have a modest margin of spare capacity (Section 3), and investment is unlikely to increase significantly while that margin remains. According to CBI surveys, the number of companies reporting that they were investing to expand capacity dropped quite sharply in 2012 Q2.

Given the cost of reversing many investment decisions, companies may also put investment on hold if they are unusually unsure about the strength and persistence of the recovery in activity. Evidence from CBI surveys suggests that uncertainty about future demand was still more likely to restrain investment in 2012 Q2 than it was before the 2008/09 recession, although the size of that constraint does not appear to have increased markedly in response to the most recent developments in the euro area (**Chart 2.5**).

Credit conditions can also affect businesses' investment decisions. Corporate credit conditions tightened during the first half of 2012 (Section 1), although the FLS should ease credit conditions for some companies in the future.

Businesses also finance investment using internal resources. A lack of internal finance does not appear to have acted as

(1) The links between housing market activity and dwellings investment are discussed in more detail in the box on page 20 of the February 2012 *Report*.

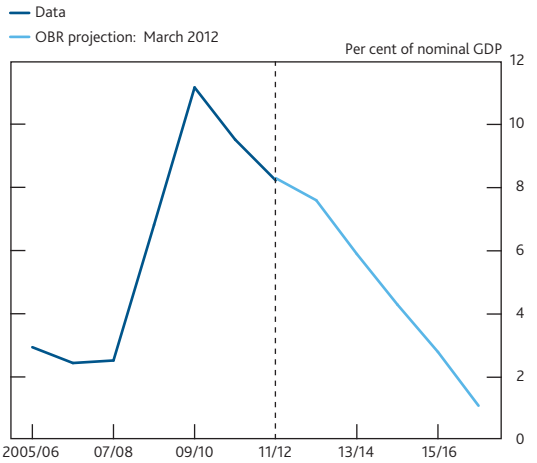
**Table 2.C** Stockbuilding and surveys of stock adequacy

| | Averages | | | 2011 | | | 2012 | |
|---|---|---|---|---|---|---|---|---|
| | 1998–2007 | 2008–09 | 2010 | H1 | Q3 | Q4 | Q1 | Q2 |
| **Stockbuilding**[a] | | | | | | | | |
| £ billions (reference year 2009) | 1.5 | -0.8 | 0.4 | 0.8 | 3.6 | 0.7 | -0.7 | n.a. |
| Percentage point contributions to quarterly real GDP growth | 0.0 | -0.2 | 0.2 | 0.1 | 0.7 | -0.8 | -0.4 | n.a. |
| **Surveys of stock adequacy**[b] | | | | | | | | |
| Manufacturing | 14 | 19 | 8 | 7 | 16 | 18 | 15 | 14 |
| Distribution | 16 | 21 | 13 | 20 | 24 | 19 | 17 | 15 |

Sources: CBI and ONS.

(a) Chained-volume measures. Excluding the alignment adjustment.
(b) Averages of monthly data. Net percentage balances of companies that say that their present stocks of finished goods are more than adequate (manufacturing) or are high in relation to expected sales (distribution).

**Chart 2.6** Public sector net borrowing[a]




Sources: Office for Budget Responsibility (OBR) and ONS.

(a) Measures exclude the temporary effects of financial interventions and the projected effect of the transfer of the Royal Mail's existing pension liabilities and a share of its pension fund assets into public sector ownership.

**Table 2.D** Public sector receipts and expenditure: differences between outturns and OBR March 2011 projections for 2011/12[a]

**£ billions**

| | 2011/12 |
|---|---|
| Public sector current receipts | -21 |
| Total managed expenditure | -17 |
| *of which:* | |
| *spending on goods and services* | *-8* |
| *net social benefits* | *3* |
| *current subsidies, grants and interest* | *-6* |
| *depreciation* | *-1* |
| *net investment* | *-5* |

Sources: OBR, ONS and Bank calculations.

(a) Measures exclude the temporary effects of financial interventions.

more of a constraint on investment over the recent past than it did before the crisis (**Chart 2.5**). Moreover, as discussed in the box on pages 24–25, it appears that the corporate sector, in aggregate, has a large financial surplus, although the implications of that for investment will depend on which companies have accumulated assets and for what purpose. The medium-term outlook for investment is discussed in Section 5.

Stockbuilding reduced GDP growth significantly in both 2011 Q4 and 2012 Q1. In 2012 Q2, surveys of stock adequacy were broadly in line with their pre-recession averages (**Table 2.C**). That suggests that companies may continue to run down stocks broadly in line with the decline in output in Q2. But even in that case, the drag on output growth from stockbuilding is likely to be somewhat smaller than it was in Q1.

### Government spending

A substantial fiscal consolidation is under way. The MPC's projections are conditioned on the fiscal plans set out in the 2012 *Budget*, supplemented by the Office for Budget Responsibility's (OBR's) associated *Economic and Fiscal Outlook*.

The fiscal deficit continued to narrow over the past year: public sector net borrowing fell to 8.2% of nominal GDP in 2011/12 from 9.5% in 2010/11 (**Chart 2.6**). But public sector net borrowing in 2011/12 was a little higher than had been projected by the OBR at the time of the Budget in March 2011. That was because tax revenue was lower than anticipated (**Table 2.D**), reflecting the unexpected weakness of the economy. But lower government spending on goods and services more than offset slightly higher spending on social benefits associated with the unexpected economic weakness, such that total government spending also came in below projections (**Table 2.D**).

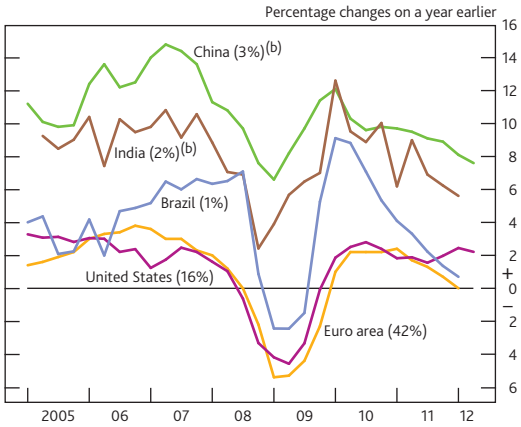
The OBR's March 2012 projections suggested that nominal government consumption growth is likely to continue to be low. But because of the way in which the volume of government spending is estimated, measured real government consumption growth is likely to be less weak.(1)

## 2.2 External demand and UK trade

Growth in the euro area — the United Kingdom's most important trading partner — has been low over the past few quarters, reflecting the indebtedness and competitiveness challenges faced by several euro-area countries. But growth has also moderated in some emerging economies and has been only modest in the United States. In part, that reflects

(1) For more information see the box on page 21 of the May 2012 *Report*.

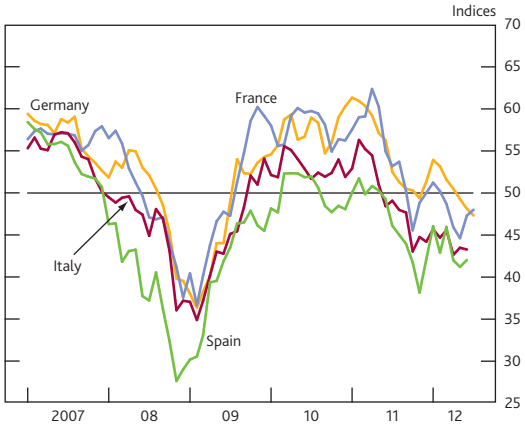
**Chart 2.7** GDP in selected countries and regions[a]




Sources: Eurostat, Indian Central Statistical Organisation, Instituto Brasileiro de Geografia e Estatística, National Bureau of Statistics of China, Thomson Reuters Datastream and US Bureau of Economic Analysis.

(a) Real GDP measures. Figures in parentheses are shares in UK goods and services exports in 2011 from the 2012 *Pink Book*. The latest observations for China and the United States are 2012 Q2 and for India, Brazil and the euro area are 2012 Q1.
(b) Non seasonally adjusted.

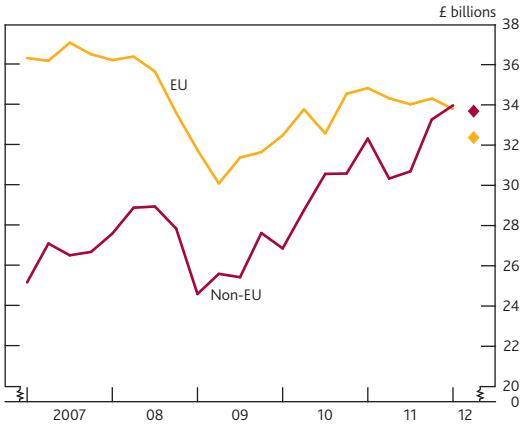
**Chart 2.8** Survey measures of output growth in selected euro-area countries[a]




Sources: ADACI and Markit Economics.

(a) Published composite indices of manufacturing and services sectors. A figure over 50 indicates rising output compared with the previous month, and a figure below 50 indicates falling output. Includes flash estimates for July 2012 for France and Germany; data for Italy and Spain are to June 2012.

**Chart 2.9** UK goods exports to EU and non-EU countries[a]




(a) Chained-volume measures (reference year 2009). Data do not exclude the estimated impact of MTIC fraud. The diamonds are the averages of data for April and May 2012.

the impact of the heightened tensions in the euro area, but it is also probably the consequence of domestic headwinds.

## The euro area

Euro-area GDP was flat over the year to 2012 Q1 (**Chart 2.7**). Activity was subdued in many member countries and fell markedly in some. That weakness in part reflects the impact of the significant challenges of addressing the imbalance of competitiveness within the euro area and reducing indebtedness in some countries. The risk that those challenges are resolved in a disorderly manner appears to have adversely affected confidence, asset prices and bank funding costs across the region. The drag from those factors is likely to have increased recently. For example, business surveys suggest that activity is likely to have fallen in several large euro-area countries in Q2 (**Chart 2.8**).

Even if the challenges facing the euro area are addressed in an orderly fashion with a credible and effective set of policies, the scale of the necessary adjustment is likely to weigh heavily on demand in the most vulnerable economies for a prolonged period. And an associated period of heightened uncertainty could continue to depress demand elsewhere in the euro area.

## The United States

US GDP rose by 0.4% in 2012 Q2, supported by domestic demand growth. But quarterly growth has slowed somewhat in recent quarters, and employment growth appears to have weakened a little. In part, that may reflect the impact of slowing global growth. But it could also reflect the continuing impact of domestic headwinds, including uncertainty about the prospective fiscal consolidation.

## Emerging economies

Four-quarter GDP growth has slowed over the past year in some emerging economies, although the pace of moderation has varied across countries (**Chart 2.7**). While weak external demand has probably played a role, that slowing is also likely to reflect the impact of domestic monetary and fiscal policy tightening during 2010 and early 2011. More recently, some central banks in emerging economies have loosened monetary policy.

## UK trade

Developments in UK exports depend on both the evolution of world trade and the share of that trade that is captured by UK companies. UK exports fell over the four quarters to 2012 Q1. That fall in part reflected declining goods exports to the EU (**Chart 2.9**). Although trade data tend to be volatile and prone to revision, data for April and May 2012 indicate that goods exports to EU countries probably contracted further in 2012 Q2. Nominal data on goods exports to the EU suggest that over the year to 2012 Q1 falling exports to the most vulnerable euro-area countries were offset somewhat by increases in exports to the rest of the euro area. But the

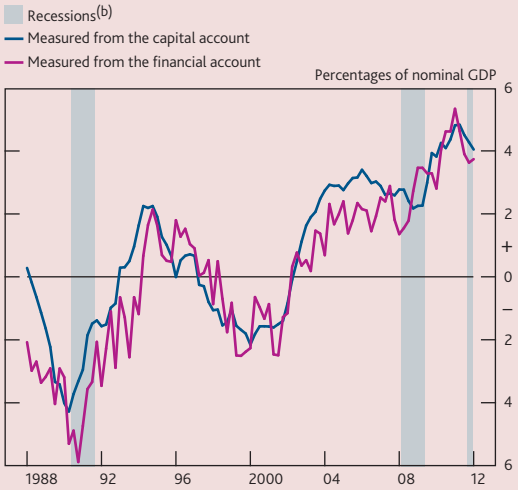
## The corporate financial balance

UK companies have run a large financial surplus throughout the past decade, and that surplus has been particularly large since the end of the 2008/09 recession (**Chart A**). This box discusses some measurement issues around the corporate financial balance. And it considers the extent to which the corporate surplus has implications for investment.

### Measuring the corporate financial balance

The financial balance of private non-financial corporations (PNFCs) is measured in two ways in the National Accounts. The first takes data on companies' income less their outgoings to gauge how much is left over (the capital account measure). The second is based on changes in companies' cash deposits and holdings of other financial assets less any new liabilities taken on (the financial account measure). Although the two measures are not identical, they have similar trends, and both suggest that companies have run a large financial surplus over the past ten years (**Chart A**).

**Chart A** UK PNFCs' financial balance[a]

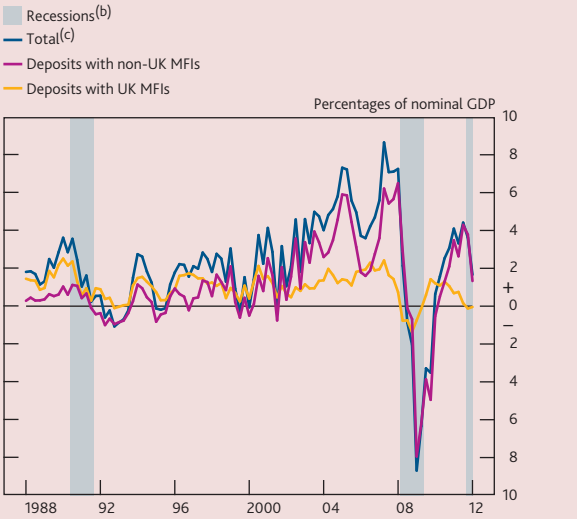



(a) Four-quarter moving averages.
(b) Recessions are defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recessions are assumed to end once output began to rise.

Based on data from the financial account, businesses appear to have used much of their financial surplus to increase cash balances (**Chart B**). The main exception to that is during, and immediately after, the 2008/09 recession when companies reduced cash holdings and repaid debt.

It is possible that the extent of the increase in companies' cash holdings has been overstated in the financial account. In particular, much of the increase has reflected higher deposits with financial institutions outside the United Kingdom (**Chart B**). But these deposits cannot be precisely measured. The ONS uses data from the Bank for International Settlements (BIS) on UK non-bank claims on overseas banks located within BIS-reporting countries, but within this, it is particularly hard to separate out accurately the deposits of PNFCs and other financial corporations (OFCs). Moreover, it is not easy to explain why the increase in deposits with foreign banks has been so much larger than the increase in deposits with UK banks — which are better measured — and it is possible that some of the increase in PNFCs' foreign deposits should instead have been attributed to OFCs.

**Chart B** Changes in UK PNFCs' currency and deposits[a]



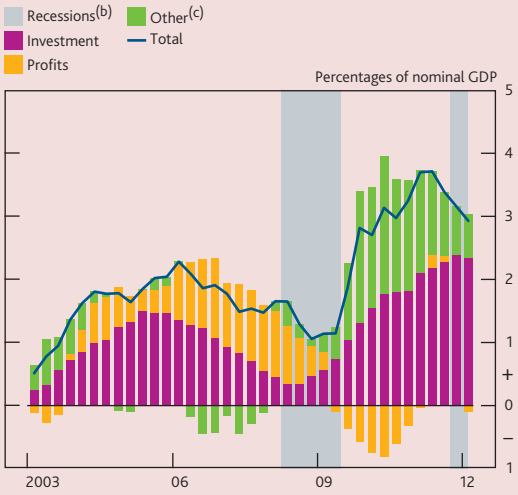

(a) Four-quarter moving averages.
(b) Recessions are defined as in **Chart A**.
(c) Includes currency, deposits with all monetary financial institutions (MFIs) and deposits with non-MFIs.

If corporate deposits with foreign banks have been overstated that does not necessarily imply that the corporate financial balance has been lower than is currently estimated. There could be offsetting measurement error within other elements of the financial account: for example, the same data source and method are used to estimate PNFCs' overseas deposits and loans, and companies could have borrowed less from foreign banks than the current vintage of data suggest. Moreover, if the financial balance is materially overstated in the financial account it would also have to be overestimated in the capital account, either because profits have been overstated or company spending has been underestimated.

### The implications of the corporate surplus for investment

Over the past decade, weak nominal investment helps to account for why companies have run a large financial surplus (**Chart C**). Between 2002 and 2005, a fall in investment relative to output accounts for a large part of the increase in the financial balance. And since the end of the 2008/09 recession, cuts in investment have more than offset lower profits, contributing to a further increase in the size of PNFCs' financial surplus.

**Chart C** Contributions to changes in UK PNFCs' financial balance since 2002[a]




(a) Four-quarter moving averages. Based on data from the capital account. A positive contribution from profits indicates that PNFCs' profits have increased as a share of nominal GDP. Positive contributions from investment and other indicate that PNFCs' investment and other spending have fallen as a share of nominal GDP.
(b) Recessions are defined as in **Chart A**.
(c) Includes dividends, net interest payments, taxes, stocks, acquisitions less disposals and other net property income.

The large financial surplus run by companies means that they are likely to have strengthened their balance sheets, partly by building up a substantial stock of cash, but also by repaying debt since 2008. That implies that they have scope to increase investment. But companies might not increase investment if they are uncertain about the prospects for demand (Section 2) and want to build up cash balances further as a precaution against future shocks. Consistent with that, respondents to the 2012 Q2 *Deloitte CFO Survey* expect UK companies to increase cash balances over the next twelve months. Companies could also use their financial surplus to repurchase equity rather than increase investment. Indeed, net equity issuance by UK PNFCs has been negative since 2011 Q1 (**Table 1.A**), although that is equivalent to less than 1% of GDP.

The implications of the corporate sector running a financial surplus for investment will also depend on which companies are accumulating financial assets. Aggregate data may mask significant differences across sectors and companies. In particular, companies in the extraction sector account for a disproportionately large share of corporate sector profits, and company accounts suggest that those companies have increased the ratio of cash held relative to their assets by significantly more than non-extraction companies over the past decade. If extraction companies account for a disproportionate part of the financial surplus that would suggest that non-extraction companies have a somewhat smaller surplus than the aggregate data suggest and, therefore, rather less scope to increase investment.

**Chart 2.10** Ratios of UK exports to UK-weighted rest of G7 imports[a]


Sources: Eurostat, Japan Cabinet Office, ONS, Statistics Canada, Thomson Reuters Datastream, US Bureau of Economic Analysis and Bank calculations.

(a) Chained-volume measures of UK goods (services) exports divided by real imports of goods (services) in Canada, France, Germany, Italy, Japan and the United States, weighted using UK 2011 goods (services) export shares from the 2012 *Pink Book*. UK goods exports data have been adjusted for MTIC fraud by an amount equal to the ONS's goods imports adjustment.

apparent weakening in growth in Q2 appears to reflect a more widespread softening in export demand from across the euro area, a pattern consistent with reports from the Bank's Agents.

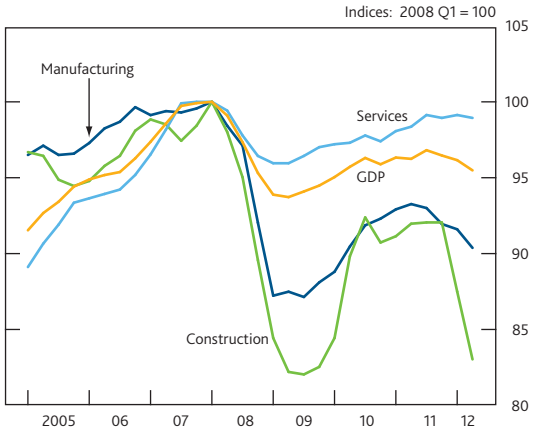
Recent weak export growth may also reflect an adverse shift in global demand away from activities in which the United Kingdom specialises, such as business and financial services. Following the depreciation of sterling during 2007 and 2008, the ratio of UK goods exports to goods imported by the rest of the G7 countries has stabilised after an earlier period of steady decline (**Chart 2.10**). But the UK service sector's export share has been broadly flat, after having increased between 2002 and 2007. The prospects for exports are discussed in Section 5.

Import growth remained subdued over the year to 2012 Q1. The latest monthly data suggest that goods imports growth continued to be muted in Q2. Weak import growth over the past four years is likely to reflect, in part, depressed demand. The lower level of sterling over the past few years may also have led to some switching of expenditure away from imports and towards domestically produced output.

# 3 Output and supply

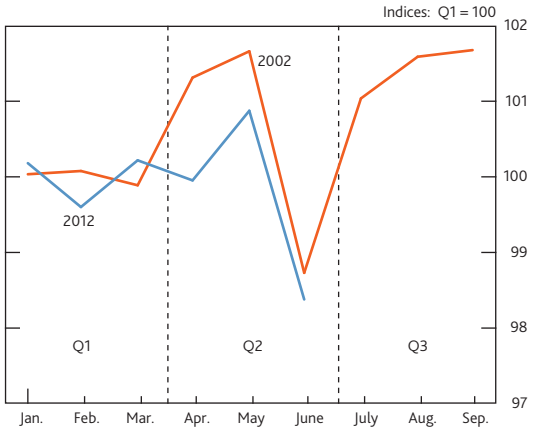
Output is estimated to have contracted by 0.7% in Q2. That fall largely reflected a temporary reduction in activity associated with the additional bank holiday for the Diamond Jubilee and an unusually large decline in construction sector output. Nevertheless, looking through recent volatility, output growth has been weak. Despite that weakness, employment has risen further since the start of 2012 and the unemployment rate has again edged down. There appears to be a large margin of slack in the labour market, but the amount of spare capacity in companies appears to be more modest.

**Chart 3.1** GDP and sectoral output[a]




(a) Chained-volume measures. GDP is at market prices. Indices of sectoral output are at basic prices.

**Chart 3.2** Manufacturing and services GVA around the Golden Jubilee in June 2002 and the Diamond Jubilee in June 2012[a]




(a) Gross value added (GVA) at basic prices for services and manufacturing weighted by their shares in nominal value added. Data for June 2012 are consistent with the ONS's preliminary estimate of GDP in 2012 Q2. For information on how the ONS estimated the June 2012 data, see www.ons.gov.uk/ons/dcp171766_274072.pdf.

Abstracting from quarterly volatility, the level of output has been broadly unchanged since the middle of 2010. Some business surveys taken during Q2 suggested that output growth was likely to remain subdued in Q3 — a weaker near-term outlook than embodied in the MPC's May 2012 projections (Section 3.1).

In contrast to output, private sector employment has grown robustly since mid-2010 (Section 3.2). As a result, measured productivity has stagnated — indeed, it has fallen since 2011 Q3. That weakness in measured productivity growth appears to have been associated with a period of subdued growth in underlying productivity (Section 3.3). Unemployment remains elevated and there still appears to be a considerable amount of slack in the labour market (Section 3.4).

## 3.1 Output

Output is provisionally estimated to have fallen by 0.7% in Q2 (**Chart 3.1**), marking a third quarter of recession. Around half a percentage point of the contraction in Q2 may have been accounted for by the additional bank holiday in June for the Diamond Jubilee, similar to the effect associated with the Golden Jubilee in 2002.(1) For example, manufacturing and services output is estimated to have fallen by over 2% in June, comparable to the decline in June 2002 (**Chart 3.2**).

The additional bank holiday is also likely to have reduced construction sector output, but it cannot account for all of the 5% fall in output in that sector in Q2. Construction output declined sharply in Q1 too (**Chart 3.1**), accounting for much of the Q1 fall in GDP. As discussed in the box on page 27, it seems unlikely that construction output will continue to fall at such a rapid pace. Output of the oil and gas extraction sector also reduced GDP growth in Q2, probably reflecting disruptions to production associated with the Elgin oil platform.

(1) The box on pages 26–27 of the May 2012 *Report* discusses the effects on measured output of the additional bank holiday associated with the Diamond Jubilee and of the 2012 Olympic Games.

## Recent trends in construction sector output

Construction sector output is estimated to have contracted by almost 10% over 2012 Q1 and Q2, leaving the level of output only a little above its trough after the 2008/09 recession (**Chart 3.1**). Those falls in output reduced GDP growth by 0.4 percentage points in each quarter.

The sharp contraction in construction sector output in 2012 H1 may have been partly related to temporary constraints on production, including the additional bank holiday for the Diamond Jubilee and poor weather. But even taking those factors into account, the size of the fall in output was surprising, and much greater than suggested by survey indicators of construction output growth (**Table 1**).

**Table 1** Survey indicators of construction output growth

| | Averages | | | | | |
|---|---|---|---|---|---|---|
| | 1998–2007 | 2008–09 | 2010 | 2011 H1 | 2011 H2 | 2012 H1 |
| Agents' scores[(a)] | 2.1 | -1.3 | -1.0 | 0.4 | -0.3 | -0.7 |
| Experian[(b)] | 55 | 41 | 47 | 47 | 46 | 46 |
| Markit/CIPS[(b)] | 56 | 42 | 53 | 55 | 53 | 53 |
| Memo: quarterly construction output growth[(c)] | 0.5 | -2.2 | 2.4 | 0.7 | 0.1 | -5.1 |

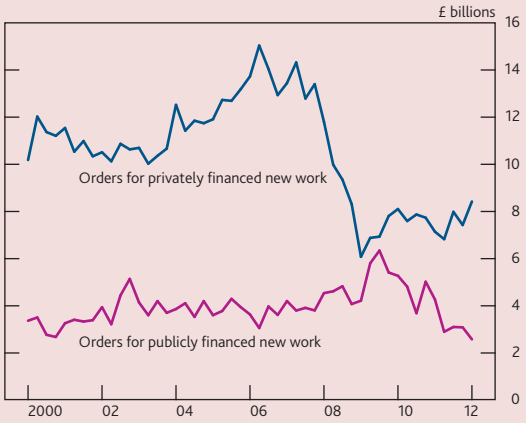
Sources: Bank of England, Experian, Markit Economics and ONS.

(a) End-quarter observations on a scale of -5 to +5, with positive scores indicating that output increased relative to one year earlier.
(b) Quarterly averages of monthly construction activity indices. A reading above 50 indicates rising output.
(c) Chained-volume measure.

Despite the large falls in 2012 H1, the ONS data may provide a reasonable reflection of the current level of construction output. That is because the rises in output recorded in 2010 (**Chart 3.1**) also appear surprisingly large. Contacts of the Bank's Agents reported that the level of output was only slightly higher in the first half of 2011 than a year earlier. Other survey indicators point to very little recovery in output since the end of the 2008/09 recession (**Table 1**).

It is likely that the level of construction output has been affected by a decline in general government investment since 2010. Part of that fall in investment is likely to reflect the fiscal consolidation, and so has probably been associated with a reduction in spending on items such as school buildings and public sector housing. More recently, part of it may reflect a waning boost from spending on construction projects related to the Olympic Games. Consistent with the reduction in government investment, orders for publicly financed new construction work have fallen in recent years (**Chart A**).

**Chart A** Orders for new construction work[(a)]




Sources: ONS and Bank calculations.

(a) Chained-volume measures at 2005 prices. The final data point is 2012 Q1. Orders for new construction work comprise new housing, new infrastructure and other new work. The split of new infrastructure between publicly financed and privately financed is estimated using shares in non seasonally adjusted new infrastructure orders at current prices.

Given the lags between projects being started and completed, the past falls in orders for publicly financed new work may depress construction activity further over coming quarters. But the Office for Budget Responsibility projected in its March 2012 *Economic and Fiscal Outlook* that general government investment would be broadly flat over the next few years, suggesting that the drag on construction output growth from publicly financed work should gradually abate.

It seems improbable that construction output will continue to fall as sharply as it did in 2012 H1. In addition, construction output may be supported by orders for privately financed new work, which have ticked up over the past year (**Chart A**). Consequently, the drag on GDP growth from any further decline in construction output should be small.

**Table 3.A** Survey indicators of expected near-term output growth

| | Averages | | | 2012 | |
|---|---|---|---|---|---|
| | 1999–2007 | 2008–09 | 2011 H2 | Q1 | Q2 |
| BCC[(a)] | 49 | 11 | 22 | 32 | 33 |
| CBI[(b)] | 14 | -16 | -10 | 3 | 10 |
| Markit/CIPS[(c)] | 70 | 60 | 62 | 67 | 64 |

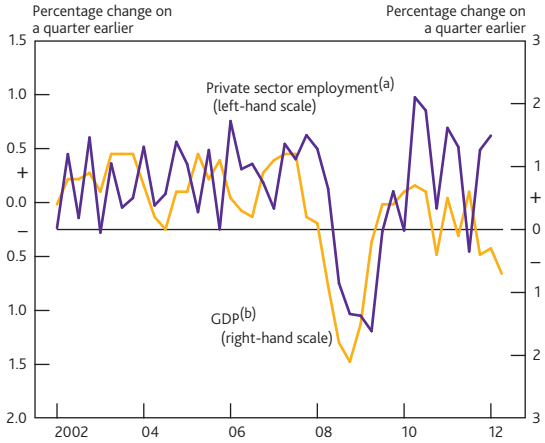
Sources: BCC, CBI, CBI/PwC, Markit Economics, ONS and Bank calculations.

(a) Net percentage balances of respondents reporting an increase in confidence about turnover in the non-services and services sectors, weighted together using nominal shares in value added. Data are non seasonally adjusted.
(b) Net percentage balances of respondents reporting an increase in the expected volume of business in the manufacturing, financial services and business/consumer services sectors, and reporting an increase in the expected volume of sales in the distributive trades sector, weighted together using nominal shares in value added.
(c) Indices of new orders (manufacturing) and business expectations (services and construction), weighted together using nominal shares in value added.

Abstracting from temporary effects, the level of GDP has been broadly unchanged since the middle of 2010. And forward-looking survey indicators suggested that growth in Q3 was likely to be weaker than embodied in the MPC's May 2012 projections: the BCC and Markit/CIPS surveys taken in Q2 indicated that underlying activity was likely to be broadly flat in Q3 (**Table 3.A**); and in July, the Markit/CIPS manufacturing output balance dropped sharply. That weakness in the near-term growth outlook may reflect recent developments in the euro area (Section 2).

Nonetheless, quarterly output growth is likely to rise sharply in Q3. The rebound in output from its depressed level in Q2

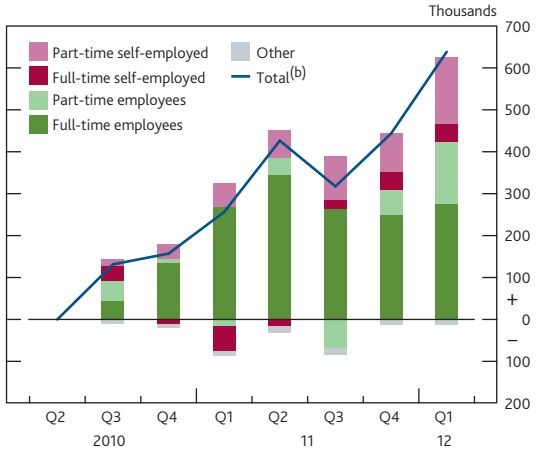
**Chart 3.3** Output and private sector employment




Sources: ONS (including the Labour Force Survey) and Bank calculations.

(a) Data are to 2012 Q1. Calculated as the difference between LFS whole-economy employment and total public sector employment from the ONS's public sector employment release, adjusted to be on a calendar-quarter basis.
(b) Data are to 2012 Q2. Chained-volume measure at market prices.

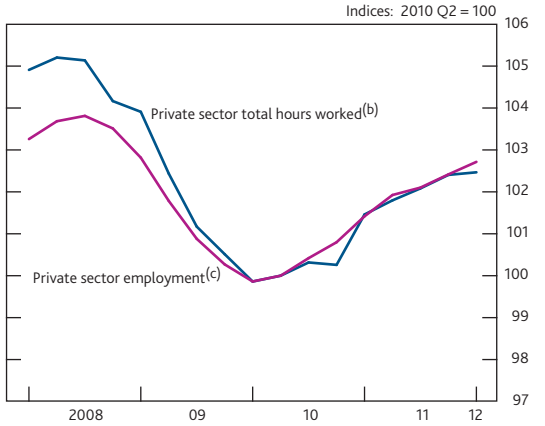
**Chart 3.4** Cumulative changes in private sector employment since 2010 Q2(a)




Sources: Labour Force Survey and Bank calculations.

(a) Based on quarterly LFS microdata that have been seasonally adjusted by Bank staff.
(b) Total may not equal sum of the components due to seasonal adjustment and because a small proportion of respondents to the LFS do not report their employment status.

**Chart 3.5** Private sector employment and hours worked(a)




Sources: ONS (including the Labour Force Survey) and Bank calculations.

(a) Four-quarter moving averages.
(b) Based on quarterly LFS microdata that have been seasonally adjusted by Bank staff.
(c) As defined in footnote (a) of **Chart 3.3**.

following the additional bank holiday will boost growth. And the Olympic Games may support activity too.

## 3.2 Labour demand and measured productivity

Private sector employment grew strongly in 2012 Q1 and is likely to have increased further in the three months to May. Indeed, private sector employment has grown robustly over the period since mid-2010, increasing by around 600,000 according to the Labour Force Survey (LFS). Workforce Jobs data also suggest that private sector employment has risen significantly since 2010.

The rise in private sector employment since mid-2010 has, to a degree, been offset by a fall in public sector employment, such that whole-economy employment has increased by 200,000 over that period. Public sector employment, which fell by around 40,000 in 2012 Q1, is likely to continue to fall over the next few years, although the overall extent of the reduction necessary to meet the Government's spending plans remains uncertain.

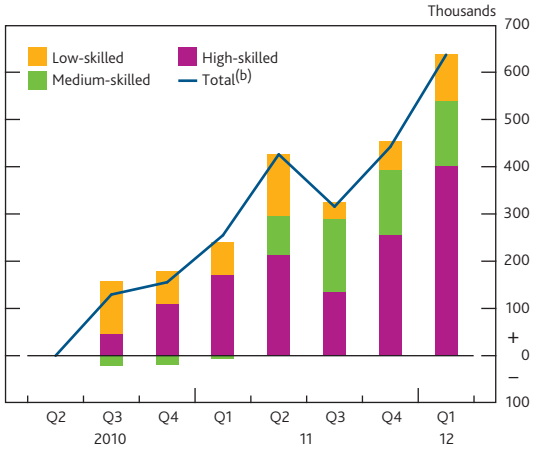
The resilience of private sector employment since mid-2010 stands in marked contrast to the weakness in output over that period. The divergence between the growth in employment and the contraction in output since 2011 Q4 looks particularly puzzling (**Chart 3.3**).

A number of factors may help to explain the strength of private sector employment relative to output. One possibility is that current data overstate the size of the puzzle, especially in recent quarters. Initial estimates of output are frequently revised as new information becomes available. And estimates of employment are imperfect due to sampling variation. But the degree of mismeasurement would have to be unusually large for it to explain all of the puzzle.

Alternatively, a rise in the prevalence of part-time working could mean that the increase in private sector employment overstates the increase in companies' use of labour since mid-2010. Part-time employees account for around one quarter of the increase in private sector employment since 2010 Q2 (**Chart 3.4**). That appears to reflect a choice by companies to create more part-time positions: the number of people working part-time but reporting that they would prefer a full-time job remains higher than before the 2008/09 recession. But changes in hours worked have offset the shift towards part-time work: total hours worked have increased broadly in line with employment since 2010 (**Chart 3.5**).

There has also been a rise in self-employment, with many of those working part-time (**Chart 3.4**). It is not clear what that implies about the strength of labour demand: while some of the rise might be accounted for by people who would prefer to

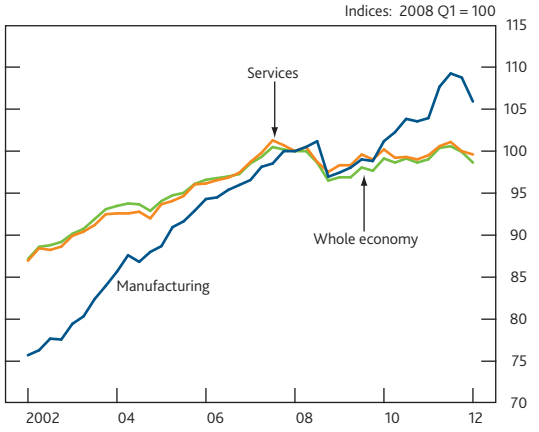
**Chart 3.6** Cumulative changes in private sector employment since 2010 Q2 by occupational skill level[a]




Sources: Labour Force Survey and Bank calculations.

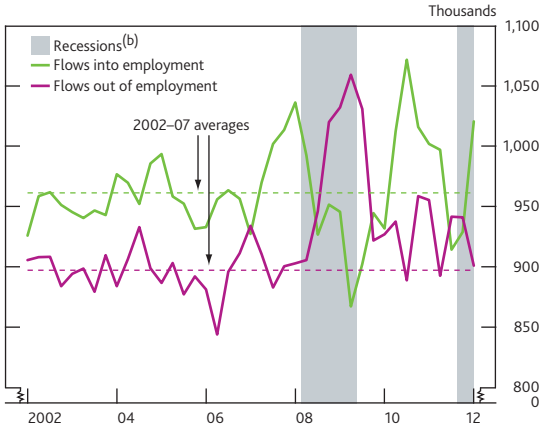
(a) Based on quarterly LFS microdata that have been seasonally adjusted by Bank staff. Skill levels are defined using one-digit codes from the 2010 Standard Occupational Classification. High-skilled comprises: managers, directors and senior officials, and professional, associate professional and technical occupations. Medium-skilled comprises: administrative and secretarial, skilled trades, and caring, leisure and other service occupations. Low-skilled comprises: process, plant and machinery operatives, and sales and consumer services and elementary occupations.
(b) Total may not equal sum of the components due to seasonal adjustment and because a small proportion of respondents to the LFS do not report their occupation.

**Chart 3.7** Whole-economy and sectoral labour productivity[a]




(a) Output per hour.

**Chart 3.8** Flows into and out of employment[a]




Sources: ONS (including the Labour Force Survey) and Bank calculations.

(a) Two-quarter moving averages.
(b) Recessions are defined as at least two consecutive quarters of falling output (at constant prices) estimated using the latest data. The recessions are assumed to end once output began to rise.

have a job within a company, it could also reflect a shift towards more flexible forms of working, such as outsourcing.

Another feature of the rise in private sector employment since mid-2010 has been the occupational mix. Most of the increase has been accounted for by those in relatively highly skilled occupations (**Chart 3.6**), as was the case prior to the 2008/09 recession.

The combination of strong employment growth and unchanged output since the middle of 2010 has resulted in stagnant labour productivity. Indeed, whole-economy productivity fell by almost 2% over 2011 Q4 and 2012 Q1 (**Chart 3.7**). And the data currently available suggest that productivity is likely to have declined further in Q2.

Some of the strength in employment, and thus the weakness in measured productivity, could prove to be temporary if it reflects companies — either out of necessity or choice — holding on to staff despite the weakness in demand. For example, some companies' demand for labour may not have fallen because they cannot cut staff numbers below a minimum needed to keep the business in operation. Alternatively, other companies may have held on to staff because of concerns that it would be costly to replace them when demand recovered. Measured productivity could, therefore, increase rapidly when demand recovers. Or, if these companies conclude that demand will remain weak, they may cut back employment, which would also boost productivity.

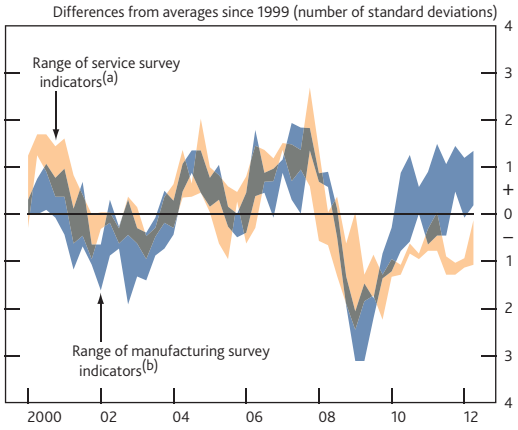
But data on employment flows suggest that relatively little of the strength in employment since mid-2010 reflects companies' retention of staff. If companies have been holding on to employees, then flows out of employment might have been expected to fall. LFS data indicate, however, that outflows from employment in the economy as a whole have been a little above their 2002–07 average throughout the past two years (**Chart 3.8**). The resilience of employment appears instead to reflect above-average flows into employment.

While some of the weakness in measured productivity growth may be cyclical and therefore temporary, part of it may also reflect subdued growth in underlying productivity. Section 3.3 discusses evidence on the evolution of underlying productivity.

## 3.3 Underlying productivity and spare capacity in companies

Surveys of spare capacity provide one way to assess the extent to which weak measured productivity growth reflects a period of subdued growth in underlying productivity. If there has been no change in underlying productivity growth, then many companies should be operating well below normal capacity. But if underlying productivity growth has been impaired, then companies are likely to have less scope to increase output.

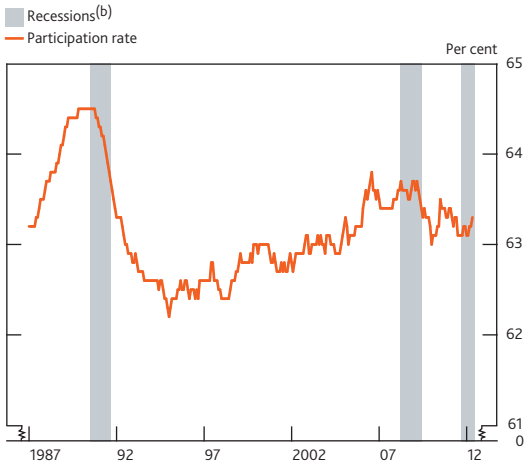
**Chart 3.9** Survey indicators of capacity utilisation by sector




Sources: Bank of England, BCC, CBI, CBI/PwC and ONS.

(a) Includes measures of services capacity utilisation from the Bank's Agents, BCC and CBI. The Agents' data are end-quarter observations. The CBI measure weights together financial services, business/consumer services and distributive trades surveys using shares in nominal value added. The BCC data are non seasonally adjusted.
(b) Includes measures of manufacturing capacity utilisation from the Bank's Agents and CBI, and a measure of non-services capacity utilisation from BCC. The Agents' data are end-quarter observations. The BCC data are non seasonally adjusted.

**Chart 3.10** Participation rate(a)




Source: ONS (including the Labour Force Survey).

(a) Percentage of the 16+ population. Three-month rolling measure.
(b) Recessions are defined as in **Chart 3.8**.

Evidence from business surveys is consistent with much of the weakness in measured productivity growth being associated with subdued growth in underlying productivity. The proportion of companies reporting that they are operating below capacity has been relatively small, especially in the manufacturing sector (**Chart 3.9**). Moreover, that proportion has been broadly unchanged since 2011 Q4, despite falling output and rising employment.

As noted in previous *Reports*, these survey measures may underestimate the extent of spare capacity in companies. For example, some businesses may report that they have little spare capacity because they have to divert resources away from producing output and towards generating custom when activity is subdued. In such cases, companies should be able to meet any increase in demand from their existing resources.

There are several reasons why underlying productivity growth may have been weak following the financial crisis. For example, tighter credit conditions are likely to have hampered some companies' ability to expand output, especially those relying heavily on working capital. In addition, banks may have been less willing to lend to new or dynamic companies that tend to have higher productivity, because those loans may carry greater risks. Forbearance by banks on existing loans may also have impeded rebalancing, by allowing less productive businesses to continue trading.

Business investment has been weak since the 2008/09 recession, impeding growth in the stock of physical capital. Moreover, heightened uncertainty may have stunted the pace of innovation within businesses, for example if companies that are uncertain about the demand outlook are less willing to invest in research and development. Consistent with that, there is evidence that intangible investment fell during the 2008/09 recession, albeit by less than tangible investment.(1) That will have pushed down growth in the supply capacity of the economy further.

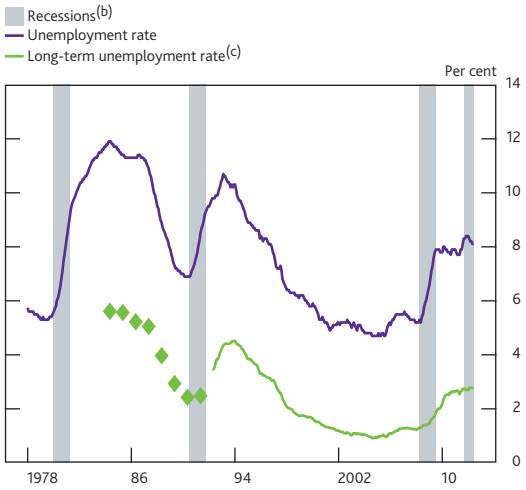
Overall, the MPC judges that most of the weakness in measured productivity growth in recent years has been accompanied by subdued growth in underlying productivity. But there is still considerable uncertainty regarding the evolution of underlying productivity since the financial crisis (Section 5).

## 3.4 Labour supply and labour market slack

In addition to underlying productivity and spare capacity in companies, inflationary pressures also depend on the balance between labour demand and labour supply.

(1) Goodridge, P, Haskel, J and Wallis, G (2012), 'UK innovation index: productivity and growth in UK industries', *Nesta Working Paper No. 12/09*.

## Chart 3.11 Unemployment rates(a)




Source: ONS (including the Labour Force Survey).

(a) Rolling three-month measures unless otherwise stated.
(b) Recessions are defined as in **Chart 3.8**.
(c) Defined as those people who have been unemployed for more than twelve months divided by the economically active population. Data prior to 1992 are based on non seasonally adjusted, annual LFS microdata. These annual observations correspond to the March-May quarter.

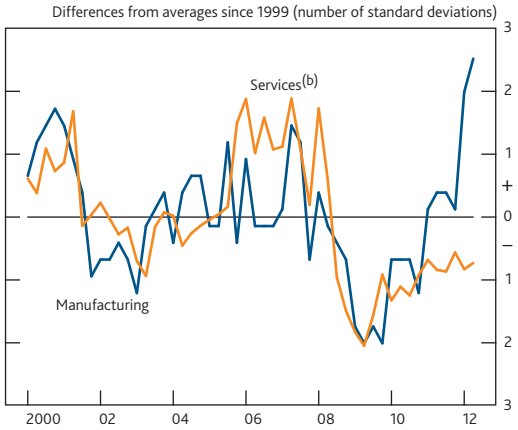
## Table 3.B Selected indicators of labour market slack

| | Averages | | | 2012 | |
|---|---|---|---|---|---|
| | 1998–2007(a) | 2010 | 2011 | Q1 | Q2 |
| LFS unemployment rate(b) | 5.3 | 7.9 | 8.1 | 8.2 | 8.1 |
| Claimant count unemployment rate | 3.2 | 4.6 | 4.7 | 4.9 | 4.9 |
| Weighted non-employment rate(b)(c) | 7.6 | 9.4 | 9.5 | 9.5 | 9.4 |
| Vacancies/unemployed ratio(b)(d) | 0.41 | 0.19 | 0.18 | 0.18 | 0.18 |

Sources: ONS (including the Labour Force Survey) and Bank calculations.

(a) Unless otherwise stated.
(b) The figure for 2012 Q2 shows data for the three months to May.
(c) Percentage of the 16–64 population. This measure weights together different types of non-employed by backward-looking four-quarter moving averages of quarterly transition rates of each group into employment derived from the LFS.
(d) Number of vacancies (excluding agriculture, forestry and fishing) divided by LFS unemployment. Average is since 2001 Q2.

## Chart 3.12 Survey indicators of recruitment difficulties for skilled employees(a)




Sources: CBI, ONS and Bank calculations.

(a) Balances of respondents expecting skilled labour to limit output/business over the next three months (in the manufacturing sector) or over the next twelve months (in the services sector).
(b) Results for the financial, business and consumer services sectors are weighted together using employee jobs shares from Workforce Jobs.

## Labour supply

Labour supply depends, in part, on the size of the population. Initial results from the 2011 Census indicate that the population in England and Wales was 476,000 higher than the ONS previously estimated. Just under half of that appears to reflect an underestimate of the population in 2001, with the remainder accounted for by higher net migration between 2001 and 2011. As discussed in previous *Reports*, a range of indicators suggested that migration in the mid-2000s was stronger than recorded in official estimates, and the MPC had already placed some weight on those indicators.(1) Consequently, while the Census may result in revisions to labour market data, the Committee judges that it is unlikely to affect the inflation outlook significantly.

The proportion of the adult population participating in the labour market — the participation rate — has fallen since the start of the 2008/09 recession, albeit by much less than it did following the 1990/91 recession (**Chart 3.10**). Part of the fall in participation since 2008 reflects a rise in the proportion of the over 65s in the population, as they are typically much less likely to want to work. In addition, elevated unemployment (**Chart 3.11**) appears to have discouraged some people, especially the young, from participating, although that effect may have been smaller than in the past.

## Labour market tightness

The unemployment rate — one indicator of the balance between labour demand and supply — fell to 8.1% in the three months to May (**Chart 3.11**), as employment rose (Section 3.2). Nevertheless, the unemployment rate remains around 3 percentage points higher than at the start of 2008. Although some of those who are unemployed for a long period may lose the skills that they need to compete effectively for jobs, the rise in long-term unemployment has been smaller than that following the 1990/91 recession.

A broader indicator of labour market tightness, the weighted non-employment rate, also points to a significant margin of slack (**Table 3.B**). As well as the unemployed, this measure takes into account people who are not currently participating in the labour market — since they may decide that they want to work in the future — weighting different groups together by the rates at which they have moved into jobs in the past.

Survey measures of recruitment difficulties are another indicator of slack. There are signs that manufacturing companies have found it more difficult to recruit skilled staff since the start of 2012. But the proportion of service sector companies reporting recruitment difficulties remains below its historical average (**Chart 3.12**). On balance, it is likely that a considerable amount of slack remains in the labour market (Section 5).

(1) The uncertainties surrounding estimates of migration have been discussed in several *Reports*. See, for example, the box on pages 22–23 of the August 2005 *Report* or the November 2007 *Report*.

# 4 Costs and prices

CPI inflation continued to fall sharply during 2012 Q2 and stood at 2.4% in June. That decline mainly reflected lower contributions from petrol, food, and clothing and footwear prices. Inflation is likely to continue to fall in the near term as earlier rises in energy prices drop out of the twelve-month comparison. Non-energy import price inflation slowed in Q1 and earnings growth continued to be weak. But unit labour costs have grown more quickly than earnings and companies' profit margins appear to have been squeezed. Indicators of inflation expectations were mixed.

Between March and June 2012, CPI inflation fell by more than was anticipated at the time of the May *Report* (Section 4.1). The near-term outlook for CPI inflation is materially lower than that expected three months ago, reflecting falls in energy prices and some broader-based weakness in price pressures.

The evolution of inflation further ahead will depend on developments in companies' imported and domestic costs, and on how companies respond to changes in those costs when setting prices, which will be influenced by inflation expectations (Section 4.2).

## 4.1 Consumer prices

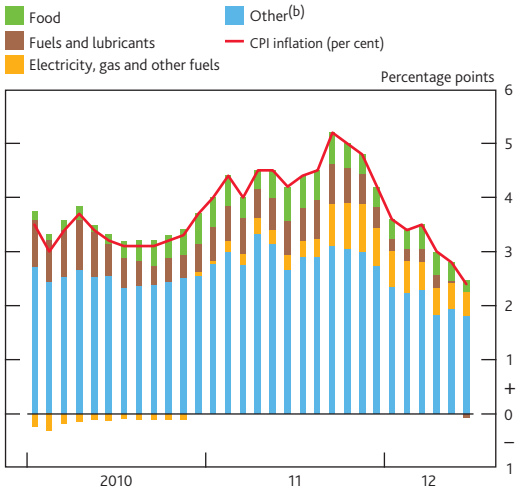
### Recent developments in CPI inflation

Inflation continued to fall sharply, reaching 2.4% in June from 3.5% in March. Part of that fall was accounted for by petrol prices, whose contribution to inflation fell by 0.3 percentage points (**Chart 4.1**). That was due to both a decline in the price of petrol over the past three months and the rise in petrol prices in 2011 Q2 dropping out of the twelve-month comparison.

The contribution of food prices to inflation also decreased by 0.3 percentage points between March and June (**Chart 4.1**). That reflected both a slowing in global food price inflation over the past year and the impact of the appreciation of sterling against the euro (Section 1). The high degree of integration between UK and euro-area food markets means that UK food prices are particularly sensitive to changes in the euro-sterling exchange rate.

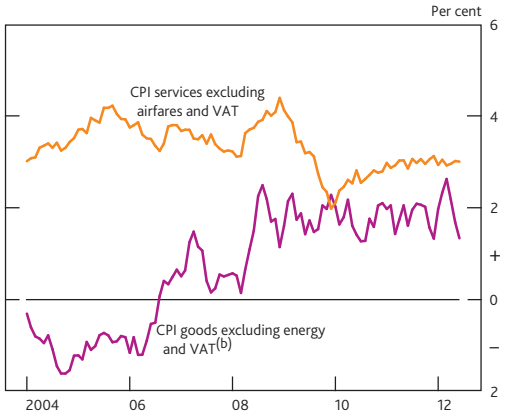
Falls in the prices of clothing and footwear reduced CPI inflation by a further 0.3 percentage points between March and June. That reflected the fact that summer sales occurred earlier than they did last year in response to weak demand, due in part to the unusually wet weather.

**Chart 4.1** Contributions to CPI inflation[a]




(a) Contributions to annual CPI inflation. Data are non seasonally adjusted.
(b) Includes a rounding residual.

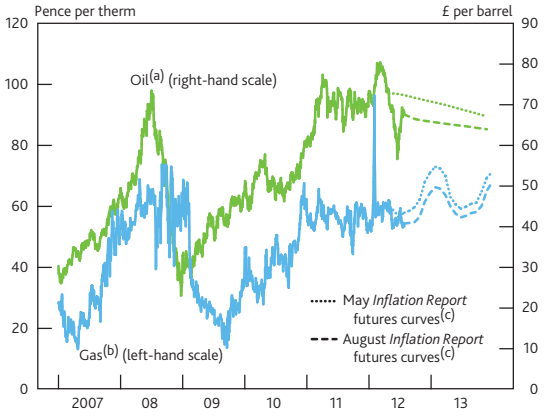
**Chart 4.2** CPI goods price inflation excluding energy and VAT and CPI services price inflation excluding airfares and VAT[a]




Sources: ONS and Bank calculations.

(a) Annual inflation rates: data are adjusted for Bank staff's estimates that around 20% of the VAT cut in December 2008 was passed on to consumers by the end of 2009 Q1, that around half of the increase in VAT in January 2010 was passed into consumer prices by the end of 2010 Q1, and that around three quarters of the increase in VAT in January 2011 was passed into consumer prices by the end of 2011 Q1.
(b) CPI goods excluding fuels and lubricants, electricity, gas and other fuels and the estimated impact of VAT changes.

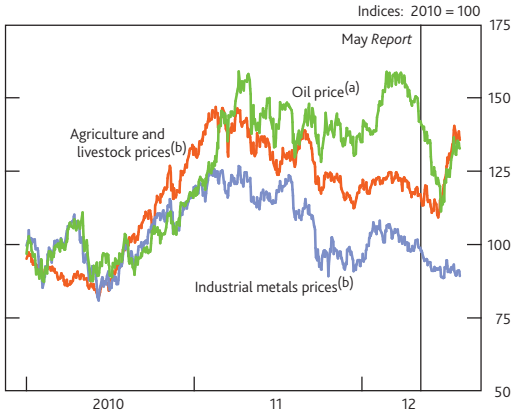
**Chart 4.3** Sterling oil and wholesale gas prices




Sources: Bank of England, Bloomberg, Thomson Reuters Datastream and Bank calculations.

(a) Brent forward prices for delivery in 10–21 days' time converted into sterling.
(b) One-day forward price of UK natural gas.
(c) The futures prices shown are averages during the fifteen working days to 9 May 2012 (dotted lines) and 1 August 2012 (dashed lines). The sterling oil futures curve is calculated by assuming that the sterling-dollar exchange rate remains at its average level during those respective fifteen-day periods.

**Chart 4.4** US dollar oil and commodity prices




Sources: Bloomberg, S&P indices and Thomson Reuters Datastream.

(a) Brent forward prices for delivery in 10–21 days' time in US dollars.
(b) Calculated using S&P (US dollar) commodity price indices.

While goods price inflation fell back sharply in Q2, services price inflation was more stable. Excluding airfares, which can be very volatile, and after allowing for changes in the rate of VAT, services inflation has been fairly steady over the past two years (**Chart 4.2**). And, despite the weakness in demand growth and a degree of spare capacity (Section 3), services inflation is only around half a percentage point below its 1997–2007 average.

## Commodity prices and the near-term outlook for CPI inflation

The near-term outlook for inflation is materially lower than in the May *Report*, with inflation likely to fall back to around the 2% target by the turn of the year (Section 5). In part, that reflects the effect of the recent falls in energy prices, which will continue to bear down on inflation over the next year. The near-term outlook for inflation will, however, depend crucially on the future path of commodity prices.

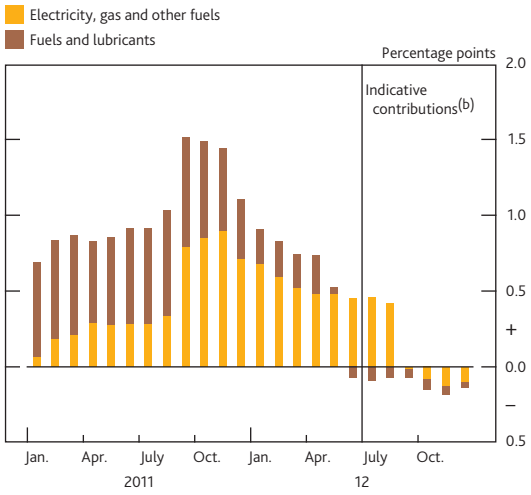
UK petrol prices are heavily influenced by crude oil prices. Sterling oil spot prices dropped sharply during May and June. Although they have since rebounded somewhat, they were around 7% lower in the run-up to the August *Report* than they were at the time of the May *Report* (**Chart 4.3**). Oil futures prices fell by slightly less, so the profile of futures prices is now a little flatter than it was three months ago.

Those movements in oil prices are likely to have reflected both supply and demand factors. OPEC oil production has increased over the past six months. And the perceived risks around future supply related to political tensions in the Middle East appeared to reduce slightly during May and June, but they re-emerged in July. Commodity demand may have weakened on the back of a weaker outlook for global demand (Section 2); consistent with that, the prices of some other commodities, such as industrial metals, have also fallen over the past three months (**Chart 4.4**). There remain material risks to oil prices on both the upside and downside. In particular, oil prices are likely to be sensitive to changes in the outlook for emerging economies, which are a major driver of global oil consumption growth.

The near-term outlook for inflation will also be affected by changes in retail gas and electricity prices, which depend heavily on developments in wholesale gas prices. Sterling gas spot prices have decreased by around 9% since the May *Report* (**Chart 4.3**), though futures prices fell by slightly less. That fall in gas prices has reduced the likelihood that domestic energy suppliers will increase their gas and electricity prices in the autumn. But continuing rises in the other costs that those suppliers face, such as those associated with distribution, are likely to result in small increases in domestic energy prices around the turn of the year.

Even though utility prices may rise modestly, the direct contribution of energy to inflation is likely to fall further over

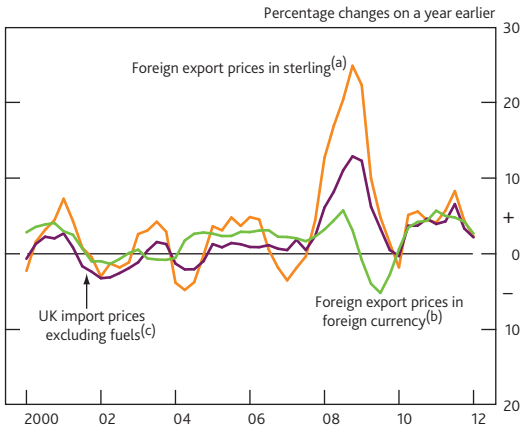
**Chart 4.5** Direct contribution of energy prices to CPI inflation[a]




Sources: Bloomberg, Department of Energy and Climate Change, ONS and Bank calculations.

(a) Contributions to annual CPI inflation. Data are non seasonally adjusted.
(b) Bank staff estimates. Electricity, gas and other fuels estimates are based on recent developments in the sterling gas futures curve shown in **Chart 4.3** and estimates of suppliers' other costs published by Ofgem. Fuels and lubricants estimates use Department of Energy and Climate Change petrol price data for July 2012 and are based on the August 2012 sterling oil futures curve shown in **Chart 4.3** thereafter.

**Chart 4.6** UK import prices and foreign export prices




Sources: Bank of England, CEIC, Eurostat, ONS, Thomson Reuters Datastream and Bank calculations.

(a) Domestic currency export prices of goods and services of 45 countries weighted according to their shares in UK imports, divided by the sterling effective exchange rate index. The sample does not include major oil exporters. The observation for 2012 Q1 is an estimate. In 2012 Q1, Chinese export prices are assumed to grow at the rate observed in the three months to February 2012, and export prices for Iceland and Pakistan are assumed to grow at their 2011 Q4 rates.
(b) Domestic currency export prices of goods and services of 45 countries, as defined in footnote (a).
(c) Goods and services deflator, excluding the impact of MTIC fraud.

the remainder of the year. Increases in utility prices in the second half of 2011 will drop out of the twelve-month comparison, reducing their contribution to inflation by around half a percentage point. In addition, the decision by the Government to postpone the planned August 2012 increase in fuel duty until January 2013 is likely to mean that inflation will be around 0.1 percentage points lower over that period than it would otherwise have been. Overall, conditioning on futures curves in the fifteen working days to 1 August, the direct contribution of energy prices is likely to bear down on inflation during the second half of 2012 (**Chart 4.5**).

In contrast to energy and metals prices, agricultural and livestock commodity prices have risen since the May *Report* (**Chart 4.4**). That mainly reflects expectations that the recent drought in some parts of the United States will reduce crop yields. But the effect on CPI inflation is likely to be modest and it will take time for international food price pressures to feed through the supply chain into UK food prices.

The near-term outlook for inflation will also be affected by the planned increase in university undergraduate tuition fees, which is likely to add around 0.2 percentage points to inflation from October. And, as the rise in fees will only apply to new undergraduates, a positive contribution to inflation will persist over the next three years as the proportion of undergraduates paying the higher level of fees increases each year.

## 4.2 Companies' costs and pricing decisions

In the long run, inflation is determined by monetary policy. But, over shorter horizons, other factors — including energy prices (Section 4.1) and non-energy import prices — can also affect companies' costs and margins, and can influence the path of inflation. Overall, the speed and extent of any further fall in inflation will depend on the rate at which external price pressures wane, and on the response of domestic wages and prices to changes in both productivity and the margin of spare capacity in the economy.

### Non-energy import prices

Following the depreciation of sterling during 2007 H2 and 2008, there were large rises in the sterling price of imported foreign goods and services (**Chart 4.6**). Strength in a wide range of commodity prices (**Chart 4.4**) led to further upward pressure on UK import price inflation during 2010 and 2011. But, since the middle of 2011, those upward price pressures have subsided.

It is likely that most of the increase in import prices related to the past depreciation of sterling has, by now, passed through into consumer prices. But there is uncertainty about how much pass-through of the more recent increases in import prices is still to come. Nevertheless, the upward pressure from import prices on production costs is likely to have declined in

## Incorporating owner-occupiers' housing costs in a measure of consumer price inflation

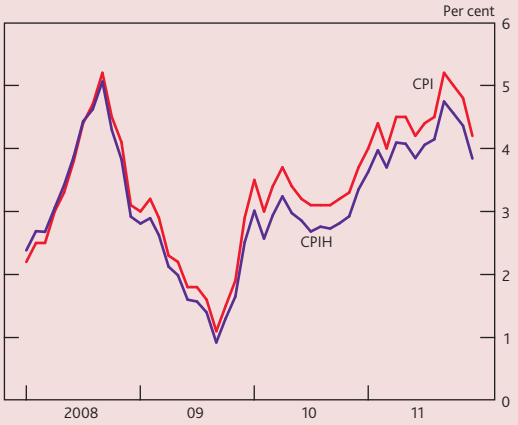
While the costs of renting a property are included in the consumer prices index, many of the costs associated with housing for those who own their home, such as the costs of buying and maintaining a property, are not. The ONS recently launched a public consultation on the inclusion of owner-occupiers' housing (OOH) costs in a new additional measure of consumer prices, currently known as CPIH.(1) The ONS plans to start publishing CPIH inflation from March 2013. This box sets out the main elements of that proposed measure.

In the National Accounts, OOH costs are estimated to account for around a tenth of households' total consumption. But, consistent with the current HICP framework set out by Eurostat, the CPI measure of inflation excludes the cost of OOH. That is due to difficulties in both determining the most appropriate way of calculating those costs and obtaining the necessary data to do so.

As recommended by the Consumer Prices Advisory Committee, the ONS has proposed incorporating OOH costs into the additional CPIH measure using the so-called 'rental equivalence' approach.(2) That approach treats the cost of OOH as equivalent to the cost that would be paid to rent a similar property. It attempts to measure just the services associated with housing that are actually consumed, rather than changes in the value of any investment. It is therefore an appropriate approach to incorporate OOH costs into a measure of consumer price inflation, and it is an approach that has been adopted by many other countries including the United States.

Under this approach, CPIH inflation is estimated by the ONS to have been, on average, 0.3 percentage points lower than CPI inflation between 2008 and 2011 (**Chart A**). That reflects low OOH cost inflation over that period, particularly during 2009 and 2010 when rental price inflation was negative.

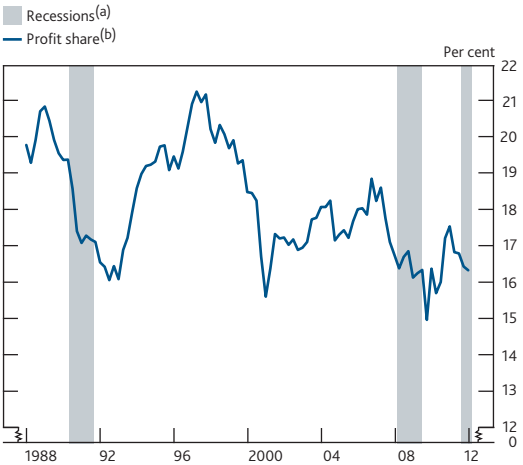
**Chart A** CPI inflation and an estimate of the proposed CPIH inflation measure(a)




(a) Data are non seasonally adjusted. Data are to December 2011, the last month for which an estimate of CPIH is available.

(1) The consultation document can be found at www.ons.gov.uk/ons/about-ons/user-engagement/consultations-and-surveys/open-consultations/owner-occupiers-housing-costs/owner-occupiers--housing-costs-consultation-document.pdf.
(2) The details of alternative approaches are explained in the consultation document referred to in footnote (1).

**Chart 4.7** Corporate profit share (excluding financial corporations and the oil sector)




Sources: ONS and Bank calculations.

(a) A recession is defined as at least two consecutive quarters of falling output (at constant market prices) estimated using the latest data. The recession is assumed to end once output began to rise.
(b) PNFCs' (excluding continental shelf companies) gross trading profits (excluding the alignment adjustment), divided by gross value added at factor cost.

Q2, reflecting both waning external commodity price pressures and the recent modest appreciation of sterling (Section 1).

### Profit margins

The outlook for consumer price inflation will depend on the extent to which weaker cost pressures feed through into prices. That will be reflected in companies' profit margins.

Companies' profit margins appear, in aggregate, to be squeezed relative to the past. Up-to-date data from the National Accounts on the ratio of profits to total costs are not readily available. But more timely data are available on the share of companies' income taken as profits, as opposed to being paid to employees. As a consequence of data revisions (see the box on page 20), that profit share is now estimated to have recovered somewhat in the period immediately after the 2008/09 recession. But, more recently, it has fallen back to around the level it reached at the end of the 2008/09 recession (**Chart 4.7**).

**Table 4.A** Private sector earnings[a]

Percentage changes on a year earlier

| | Averages 2001–07 | 2009 | 2010 | 2011 | 2012 Q1 | 2012 May[b] |
|---|---|---|---|---|---|---|
| (1) AWE regular pay | 3.9 | 1.2 | 1.5 | 2.1 | 1.9 | 2.0 |
| (2) Pay settlements[c] | 3.3 | 2.5 | 1.7 | 2.1 | 2.3 | 2.3 |
| *(1)–(2) Regular pay drift*[d] | *0.6* | *-1.3* | *-0.2* | *-0.1* | *-0.4* | *-0.3* |
| **(3) Total AWE** | **4.3** | **-0.9** | **2.0** | **2.6** | **0.7** | **2.1** |
| *(3)–(1) Bonus contribution*[d] | *0.4* | *-2.1* | *0.6* | *0.6* | *-1.2* | *0.1* |

Sources: Bank of England, Incomes Data Services, Industrial Relations Services, the Labour Research Department and ONS.

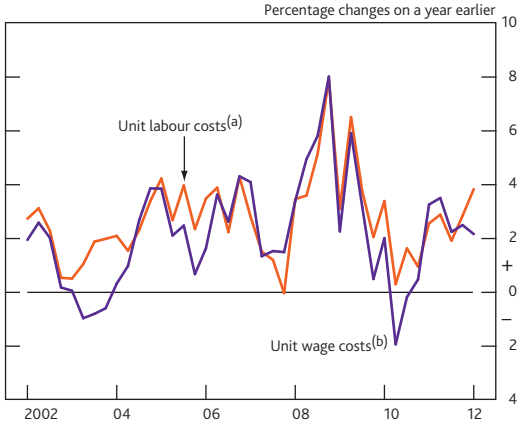
(a) Based on quarterly data unless otherwise stated.
(b) Data in the two months to May.
(c) Average over the past twelve months, based on monthly data.
(d) Percentage points.

**Chart 4.8** Private sector pay settlements[a]


Sources: Bank of England, Incomes Data Services, Industrial Relations Services, the Labour Research Department and ONS.

(a) Three-month mean.

**Chart 4.9** Private sector unit wage costs and unit labour costs




Sources: ONS and Bank calculations.

(a) Calculated using private sector average weekly earnings data, adjusted using the ratio of private sector employee compensation to wages and salaries, divided by market sector output per worker.
(b) Private sector average weekly earnings divided by market sector output per worker.

The results of surveys conducted by the Bank's Agents between 2010 and 2012 also indicate that companies' profit margins have remained compressed since the 2008/09 recession.[1] Margins were reported to be narrower for domestic-facing companies, whose pricing behaviour is more relevant for the outlook for consumer prices.

In order to retain and attract the finance that companies need to do business, profit margins may need to recover. In part, that will depend on the return that investors expect for supplying finance. As a result of the tightening in credit conditions (Section 1), that cost of finance for companies is unlikely to be materially lower than immediately prior to the start of the financial crisis — implying that margins are likely to recover in order to deliver attractive returns to investors. Respondents to the Agents' survey expected their margins to return to normal over a period of one to three years, on average.

Profit margins could recover as a result of companies increasing the rate at which they raise prices. It is likely that recent weakness in demand growth and the current margin of spare capacity within many companies (Section 3) will limit the extent to which they feel able to increase their prices. Nonetheless, it may be easier for some domestic producers to increase their prices without losing market share if the prices of imported substitutes have risen as a result of the depreciation of sterling since 2007.

Profit margins could also recover with little upward pressure on domestic prices. For example, a period of weak growth in unit labour costs, or a shift of resources towards markets with relatively higher margins, such as the export sector, may allow some companies' margins to rise. If those companies with higher margins are able to increase their share of output, that would boost margins in aggregate.

## Labour costs

In the medium term, companies' labour costs will reflect monetary policy and changes in productivity. But, in the near term, the outlook for labour costs will also depend on how much slack in the labour market (Section 3) pushes down on wage growth and the extent to which movements in productivity affect unit labour costs.

Private sector regular pay growth remains substantially below its average rate prior to the 2008/09 recession and has been fairly stable over the past year at around 2% (**Table 4.A**). Total private sector average weekly earnings (AWE) growth also remains low, but has been more volatile recently, mainly due to the weakness in financial sector bonuses in Q1.

(1) For more details, see the box on page 5 of the July 2012 *Agents' Summary of Business Conditions*.

The continued weakness in earnings growth suggests that, for many companies, weak productivity and slack in the labour market have had a significant impact on wages. Annual pay settlements, which account for a large proportion of total earnings growth, fell in Q2 (**Chart 4.8**). During that period around a third of annual employees' settlements are typically agreed. So the recent weakness in settlements could indicate a further reduction in pay pressures.

Contacts of the Bank's Agents suggested that in some companies there had been a change in the balance of pay, away from across-the-board settlements towards more flexible forms of pay. If the lower level of settlements is offset by a higher contribution from more flexible forms of pay, such as those that are performance related, overall earnings growth may be less affected. But, for those companies, it may give them greater control over their labour costs and enable them to adjust pay more easily in response to changes in demand and productivity.

Although wage growth has been relatively low, it has not been low enough to outweigh the impact of weak productivity on unit wage costs, which have recently grown at close to their historical average rate (**Chart 4.9**). Unit wage cost growth fell back slightly in Q1 as overall earnings growth slowed. But growth in unit labour costs — a wider measure, which also includes employers' social contributions — picked up in Q1 (**Chart 4.9**), mainly reflecting an increase in companies' payments to occupational pension schemes.

## Inflation expectations

The extent to which companies feel able to increase prices and the extent to which they can negotiate with employees to contain labour cost pressures will depend, in part, on companies' and households' inflation expectations.

Recent movements in measures of long-term inflation expectations have been mixed, but most indicators remain broadly in line with their historical averages (**Table 4.B**). Even though long-term expectations may remain anchored, if households and companies expect inflation to fall back relatively slowly that could still affect their wage and price-setting decisions. Companies' and households' short-term inflation expectations have declined as CPI inflation has fallen (**Chart 4.10**).

The MPC judges that, as inflation has fallen back, the upside risk to inflation from inflation expectations is likely to have diminished. And there is little evidence to suggest that the recent period of above-target inflation has had a durable impact on wage and price-setting behaviour.[1]

(1) For more details see Harimohan, R (2012), 'How has the risk to inflation from inflation expectations evolved?', *Bank of England Quarterly Bulletin*, Vol. 52, No. 2, pages 114–23.

**Table 4.B** Indicators of longer-term inflation expectations[a]

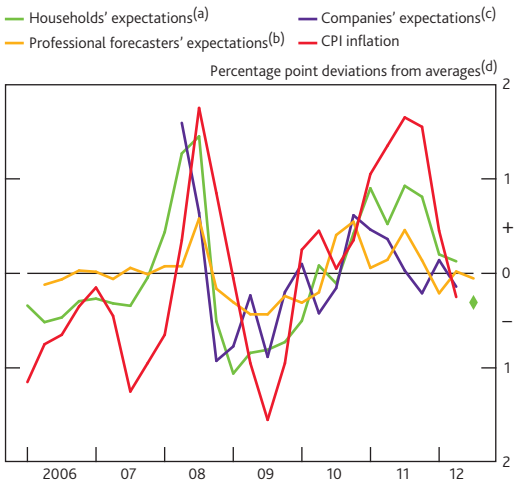
Per cent

| | Averages[b] since 2006 | 2010 | 2011 | 2012 Q1 | 2012 Q2 | 2012 Q3[c] |
|---|---|---|---|---|---|---|
| **Expectations (number of years ahead)** | | | | | | |
| **Households** | | | | | | |
| Bank/NOP (5)[d] | 3.2 | 3.2 | 3.5 | 3.2 | 3.6 | n.a. |
| Barclays Basix (5)[d] | 3.9 | 3.8 | 3.9 | 4.1 | 3.9 | n.a. |
| YouGov/Citigroup (5–10)[d] | 3.4 | 3.3 | 3.6 | 3.3 | 3.4 | 3.3 |
| **Professional forecasters** | | | | | | |
| Bank forecasters' survey (3) | 2.0 | 2.0 | 2.2 | 2.1 | 2.1 | 2.0 |
| HMT forecasters' survey (4)[e] | 2.1 | 2.2 | 2.1 | 2.3 | 2.4 | n.a. |
| **Market-based** | | | | | | |
| RPI implied from swaps (5–10)[f] | 3.5 | 3.5 | 3.3 | 3.4 | 3.2 | 3.0 |

Sources: Bank of England, Barclays Capital, Bloomberg, Citigroup, GfK NOP, HM Treasury, YouGov and Bank calculations.

(a) Data are non seasonally adjusted.
(b) Since 2009 Q1 for Bank/NOP data. Since 2008 Q3 for Barclays Basix data.
(c) YouGov/Citigroup data are for July. RPI implied from swaps data are the average from 1 July to 1 August.
(d) The questions ask about expected changes in prices, but do not reference a specific price index. Measures are based on the median estimated price change.
(e) Taken from *Forecasts for the UK economy: a comparison of independent forecasts*. Based on the average of medium-term projections.
(f) Five-year, five-year forward RPI inflation implied from swaps.

**Chart 4.10** CPI inflation and expectations of inflation one year ahead




Sources: Bank of England, Barclays Capital, CBI (all rights reserved), Citigroup, GfK NOP, ONS, YouGov and Bank calculations.

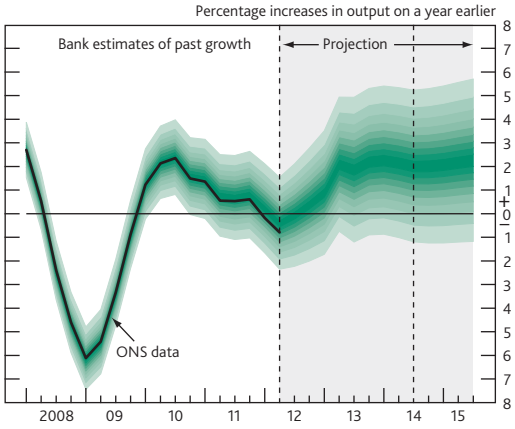
(a) Based on averages of measures of expectations for inflation from the Bank/NOP, Barclays Basix and YouGov/Citigroup surveys. These surveys do not reference a specific price index and the measures are based on the median estimated price change. The diamond shows YouGov/Citigroup data for July.
(b) Averages of projections of outside forecasters provided for *Inflation Reports* between May 2006 and August 2012.
(c) CBI data for the manufacturing, business/consumer services and distribution sectors, weighted together using nominal shares in value added. Companies are asked about the expected percentage price change over the coming twelve months in the UK markets in which they compete.
(d) Data are non seasonally adjusted. Averages from 2006 Q1 for households' expectations and CPI inflation. Averages since 2006 Q2 for professional forecasters' expectations and from 2008 Q2 for companies' expectations.

# 5 Prospects for inflation

Output has been broadly flat for the past two years. That weakness reflects the effect of considerable headwinds, including the impact of the challenges facing the euro area, tight credit conditions, the fiscal consolidation, and a squeeze on households' real income from rises in VAT and energy and import prices. A considerable drag from the first three of these headwinds is likely to persist over the forecast period. But a gentle recovery in real income growth should lead consumption and GDP growth to strengthen gradually. Activity should also be supported by the expansion of the asset purchase programme and the recently announced Funding for Lending Scheme.

Inflation has fallen further over the past three months. With a continued drag from spare capacity, inflation is likely to dip below the 2% target as the impact of external price pressures continues to wane and productivity growth recovers somewhat. Under the assumptions that Bank Rate follows a path implied by market interest rates and the size of the asset purchase programme remains at £375 billion, inflation is judged a little more likely to be below the target than above it for much of the second half of the forecast period. Those risks are broadly balanced by the end.

**Chart 5.1** GDP projection based on market interest rate expectations and £375 billion asset purchases




The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £375 billion and remains there throughout the forecast period. To the left of the first vertical dashed line, the distribution reflects the likelihood of revisions to the data over the past; to the right, it reflects uncertainty over the evolution of GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP growth would lie within the darkest central band on only 10 of those occasions. The fan chart is constructed so that outturns are also expected to lie within each pair of the lighter green areas on 10 occasions. In any particular quarter of the forecast period, GDP growth is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions GDP growth can fall anywhere outside the green area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In **Chart 5.1**, the probabilities in the upper bands are the same as those in the lower bands at Years 1, 2 and 3. See the box on page 39 of the November 2007 *Inflation Report* for a fuller description of the fan chart and what it represents. The second dashed line is drawn at the two-year point of the projection.

## 5.1 The projections for demand and inflation

CPI inflation has fallen back towards the 2% target and the near-term inflation outlook is below that anticipated three months ago. Since the May *Report*, the global outlook has weakened and the euro-area financial crisis has continued to weigh on UK activity. In light of that weakening backdrop the MPC has expanded its asset purchase programme to £375 billion. And the Bank, together with the Government, has launched the Funding for Lending Scheme (FLS) to allow banks to access cheaper funding and encourage them to lend more. By stimulating activity, those policies should help to achieve the 2% inflation target in the medium term.

GDP has fallen over the first half of 2012, in part due to unusually large falls in measured construction output and the additional Jubilee bank holiday in Q2. Abstracting from such distortions, underlying GDP growth nonetheless remains very subdued (Section 3). Weaker world growth has pulled down export growth. And although the squeeze on real income growth is lessening, it continues to weigh on consumption growth. That squeeze should continue to ease and, alongside the policy stimulus announced since May, spur a gradual recovery in GDP growth. The outlook for four-quarter GDP growth is shown in **Chart 5.1**, which is conditioned on the assumptions that Bank Rate follows a path implied by market

interest rates and that the stock of purchased assets reaches £375 billion and remains there throughout the forecast period.

The external environment, and in particular developments in the euro area, will remain a key influence on UK activity. Several euro-area countries need to rebuild their competitiveness and reduce their indebtedness. The MPC's projections assume that the euro-area authorities take sufficient steps towards fiscal, financial and political integration to boost confidence, and, over time, allow these countries to make the necessary adjustments in an orderly manner. Even so, that adjustment process is likely to weigh heavily on euro-area activity, with growth likely to remain weak for much of the forecast period. As in previous *Reports*, the MPC's fan charts exclude the most extreme outcomes associated with developments in the euro area, but the possibility of such outcomes crystallising is expected to continue to weigh on asset markets and confidence, and these influences are included in the fan charts.

Higher bank funding costs — in part reflecting euro-area developments — have put upward pressure on lending rates for households and businesses. The recently introduced FLS should reduce those lending rates, encourage more lending and support demand, but there is uncertainty around its impact. There is also uncertainty surrounding: the support to export growth from the global recovery and the exchange rate; how rapidly consumption responds to higher real income growth; the extent of the recovery in investment; and the sizes of the impacts of the fiscal consolidation and the MPC's asset purchases. In addition, it is difficult to know why both output and productivity have remained so weak in the aftermath of the financial crisis, and therefore how persistent that weakness will be.

**Chart 5.2** Projected probabilities of GDP growth in 2013 Q3 (central 90% of the distribution)[a]

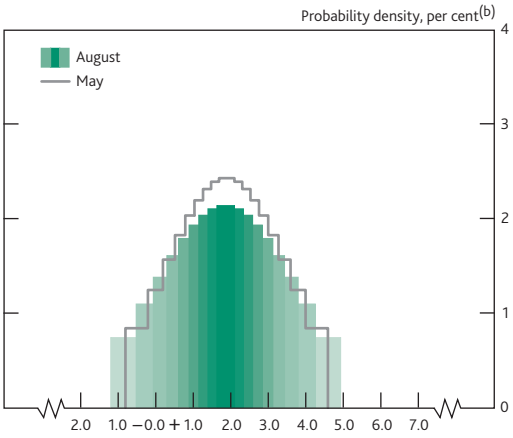
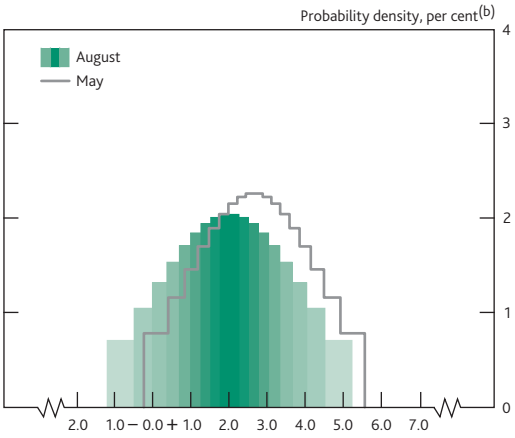


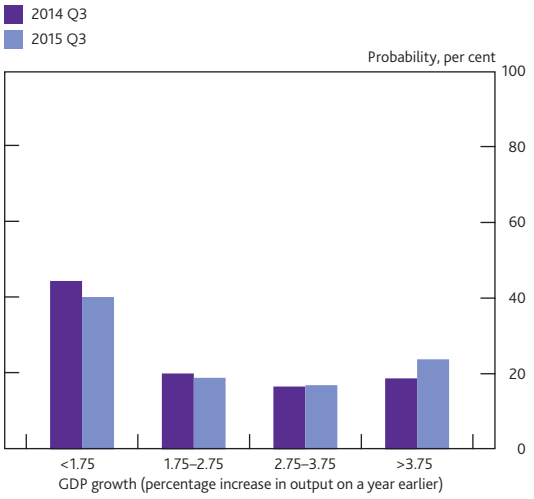

**Chart 5.3** Projected probabilities of GDP growth in 2014 Q3 (central 90% of the distribution)[a]




(a) **Charts 5.2** and **5.3** represent cross-sections of the GDP growth fan chart in 2013 Q3 and 2014 Q3 for the market interest rate projection. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £375 billion and remains there throughout the forecast period. The coloured bands in **Charts 5.2** and **5.3** have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that GDP growth in 2013 Q3 and 2014 Q3 would lie somewhere within the range covered by the histogram on 90 occasions. GDP growth would lie outside the range covered by the histogram on 10 out of 100 occasions. The grey outlines in **Charts 5.2** and **5.3** represent the corresponding cross-sections of the May 2012 *Inflation Report* fan chart, which was conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remained at £325 billion throughout the forecast period.

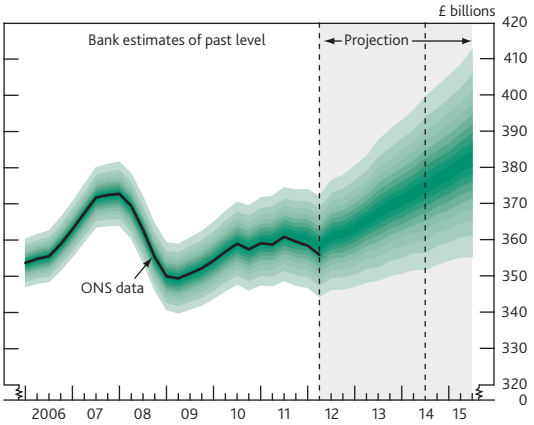
(b) Average probability within each band; the figures on the y-axis indicate the probability of growth being within ±0.05 percentage points of any given growth rate, specified to one decimal place. As the heights of identically coloured bars on either side of the central projection are the same, the ratio of the probability contained in the bars below the central projection, to the probability in the bars above it, is given by the ratio of the width of those bars.

**Chart 5.4** Frequency distribution of GDP growth based on market interest rate expectations and £375 billion asset purchases[a]




(a) These figures are derived from the same distribution as **Chart 5.1**. They represent the probabilities that the MPC assigns to GDP growth lying within a particular range at a specified time in the future.

**Chart 5.5** Projection of the level of GDP based on market interest rate expectations and £375 billion asset purchases




Chained-volume measure (reference year 2009). See the footnote to **Chart 5.1** for details of the assumptions underlying the projection for GDP growth. The width of this fan over the past has been calibrated to be consistent with the four-quarter growth fan chart, under the assumption that revisions to quarterly growth are independent of the revisions to previous quarters. Over the forecast, the mean and modal paths for the level of GDP are consistent with **Chart 5.1**. So the skews for the level fan chart have been constructed from the skews in the four-quarter growth fan chart at the one, two and three-year horizons. This calibration also takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to GDP growth in one quarter will continue to have some effect on GDP growth in successive quarters. This assumption of path dependency serves to widen the fan chart.

Based on the conditioning assumptions described above, the MPC judges that four-quarter GDP growth is likely to pick up gradually. Growth is judged likely to reach a similar rate to that expected in the May *Report* in 2013 Q3 (**Chart 5.2**), as the downside news on the global backdrop is offset by the greater policy stimulus. Further out, however, the growth profile is somewhat lower than in May (**Chart 5.3**). Growth is now judged more likely to be below than above its historical average rate in the second half of the forecast period (**Chart 5.4**). That weaker outlook, in part, reflects the possibility that the factors contributing to the weakness of growth since the financial crisis may persist. But the continued experience of weak output and productivity means that the Committee is particularly uncertain about the demand outlook, and has widened the growth distribution to reflect that. To the extent that there is a common component to the risks to demand and supply, those risks have fewer implications for the outlook for inflation.

Even with the recovery in growth, the level of output is not likely to rise above its pre-crisis level until 2014 (**Chart 5.5**). Although much of the past fall in output has been accompanied by supply weakness, it is likely that a sizable margin of spare capacity exists at the start of the forecast, largely concentrated in the labour market. That is likely to close somewhat over the forecast period.

CPI inflation has continued to fall, reaching 2.4% in June. The decline over the past three months in part reflects lower commodity prices, but broader inflationary pressures also appear to have been somewhat weaker than previously thought. Largely reflecting that news, inflation is now judged likely to fall back further this year (**Chart 5.6**), a profile lower than three months ago (**Chart 5.7**). Inflation will be sensitive to developments in commodity markets. It will also depend on domestic inflationary pressures.

Wage growth has remained weak, in part reflecting downward pressure from elevated unemployment. But that has not been enough to outweigh the weakness in productivity growth and companies' unit wage costs have been growing at close to average rates. The path of inflation will depend, in part, on the extent of the recovery in productivity and how quickly wages react to that. Inflation will also depend on the extent to which companies, especially those in the consumer-facing sector, raise prices relative to their costs, thereby restoring margins.

Given the conditioning assumptions described above, the Committee judges that inflation is a little more likely to be below the target than above it for much of the second half of the forecast period (**Chart 5.8**). At the forecast horizon, those risks are broadly balanced, but there remains a three-in-four chance that inflation will be more than half a percentage point away from the target (**Chart 5.9**). Beyond the near term, the most likely path for inflation is similar to that in May. But the

## Financial and energy market assumptions

As a benchmark assumption, the projections for GDP growth and CPI inflation described in **Charts 5.1** and **5.6** are conditioned on a path for Bank Rate implied by market interest rates (**Table 1**). In the period leading up to the MPC's August decision, the path implied by forward market interest rates was for Bank Rate to be below 0.5% for most of the forecast. The path for Bank Rate at the time of the August *Report* was, on average, almost half a percentage point lower than that assumed in the May *Report*.

**Table 1** Conditioning path for Bank Rate implied by forward market interest rates[a]

Per cent

| | 2012 | | 2013 | | | | 2014 | | | | 2015 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q3[b] | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| August | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.5 | 0.6 |
| May | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.9 | 0.9 | 1.0 | 1.1 | |

(a) The data are fifteen working day averages of one-day forward rates to 1 August 2012 and 9 May 2012 respectively. The curves are based on overnight index swap (OIS) rates.
(b) August figure for 2012 Q3 is an average of realised spot rates to 1 August, and forward rates thereafter.

The August projections are conditioned on an assumption that the total stock of asset purchases financed by the creation of central bank reserves increases to £375 billion and then remains at that level throughout the forecast period, higher than the conditioning assumption of £325 billion of purchases underlying the May projections. The starting point for sterling's effective exchange rate index (ERI) in the MPC's projections was 84.2, the average for the fifteen working days to 1 August. That was 1.1% above the starting point for the May projections. Under the MPC's usual convention,[1] the exchange rate is assumed to remain broadly flat, and is higher throughout the forecast period than assumed in May.

The starting point for UK equity prices in the MPC's projections was 2920 — the average of the FTSE All-Share for the fifteen working days to 1 August. That was 1.7% below the starting point for the May projection.

Energy prices are assumed to evolve broadly in line with the paths implied by futures markets over the forecast period. Average Brent oil futures prices for the next three years were around 8% lower (in US dollar terms) than at the time of the May *Report*. Wholesale gas futures prices were around 6% lower over the forecast period. The outlook for energy prices is uncertain, but the central projection is conditioned on a benchmark assumption of increases in domestic gas and electricity prices averaging 2.5% around the turn of the year.

(1) The convention is that the sterling exchange rate follows a path which is half way between the starting level of the sterling ERI and a path implied by interest rate differentials.

**Chart 5.6** CPI inflation projection based on market interest rate expectations and £375 billion asset purchases

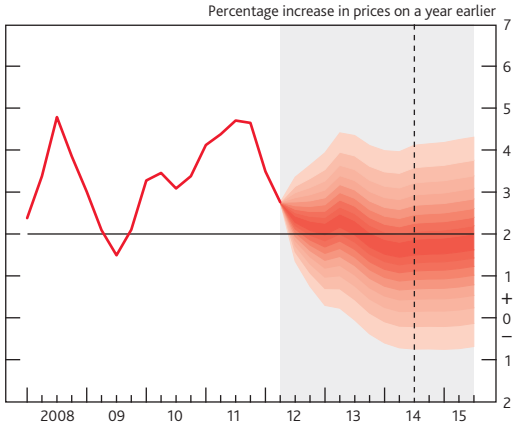
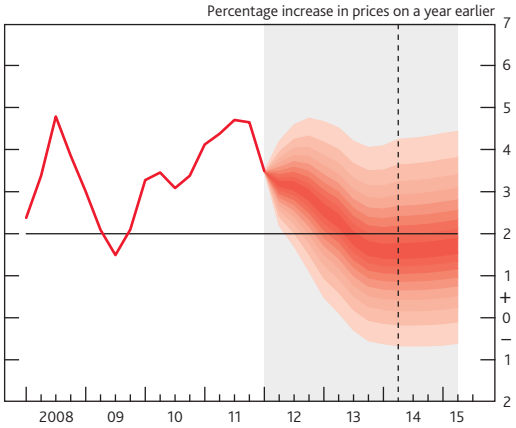
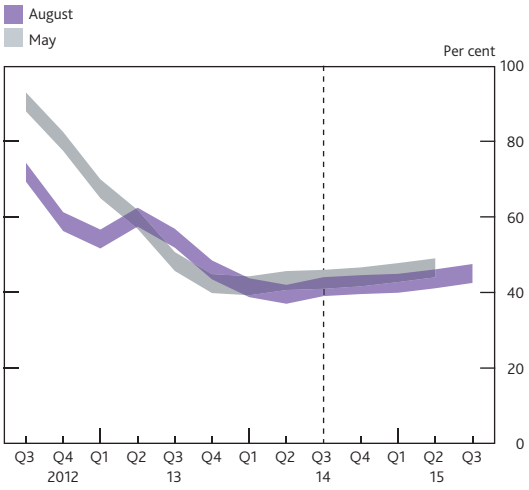



**Chart 5.7** CPI inflation projection in May based on market interest rate expectations and £325 billion asset purchases



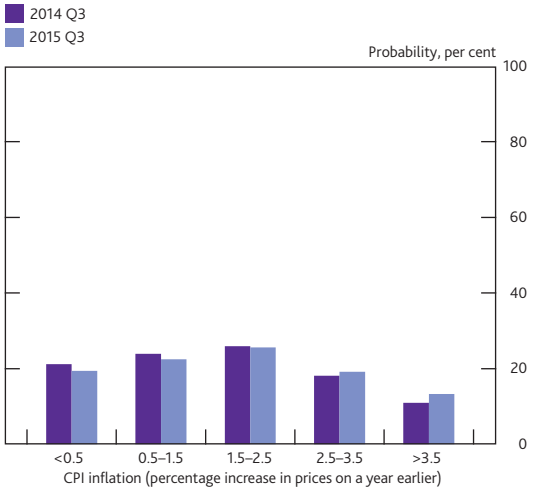

**Charts 5.6** and **5.7** depict the probability of various outcomes for CPI inflation in the future. **Chart 5.6** is conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £375 billion and remains there throughout the forecast period. **Chart 5.7** was conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remained at £325 billion throughout the forecast period. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter would lie within the darkest central band on only 10 of those occasions. The fan charts are constructed so that outturns of inflation are also expected to lie within each pair of the lighter red areas on 10 occasions. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fans on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the red area of the fan chart. Over the forecast period, this has been depicted by the light grey background. In any quarter of the forecast period, the probability mass in each pair of identically coloured bands sums to 10%. The distribution of that 10% between the bands below and above the central projection varies according to the skew at each quarter, with the distribution given by the ratio of the width of the bands below the central projection to the bands above it. In **Chart 5.6**, the probabilities in the upper bands are the same as those in the lower bands at Years 1, 2 and 3. In **Chart 5.7**, the probabilities in the upper bands are the same as those in the lower bands at Year 1, but they are slightly larger at Years 2 and 3. See the box on pages 48–49 of the May 2002 *Inflation Report* for a fuller description of the fan chart and what it represents. The dashed lines are drawn at the respective two-year points.

**Chart 5.8** An indicator of the probability that inflation will be above the target




The August and May swathes in this chart are derived from the same distributions as **Charts 5.6** and **5.7** respectively. They indicate the assessed probability of inflation being above target in each quarter of the forecast period. The 5 percentage points width of the swathes reflects the fact that there is uncertainty about the precise probability in any given quarter, but they should not be interpreted as confidence intervals. The dashed line is drawn at the two-year point of the August projection. The two-year point of the May projection was one quarter earlier.

**Chart 5.9** Frequency distribution of CPI inflation based on market interest rate expectations and £375 billion asset purchases(a)




(a) These figures are derived from the same distribution as **Chart 5.6**. They represent the probabilities that the MPC assigns to CPI inflation lying within a particular range at a specified time in the future.

risks around the central projection are judged to be more evenly balanced, as the risk that elevated expectations will put upward pressure on inflation has waned (**Charts 5.10** and **5.11**).

## 5.2 Key judgements and risks

### How will the euro area affect the UK outlook?

The continuing crisis in the euro area constitutes a significant headwind to UK demand. The MPC's projections assume that the euro-area authorities put policies in place that will allow those countries that need to rebuild their competitiveness and reduce their indebtedness to do so gradually. The fan charts do not include the most extreme outturns associated with euro-area developments as the Committee sees no meaningful way to calibrate the size and likelihood of such events. But concerns about the possibility of such events, such as a sustained euro-area depression or severe dislocation to global banking and financial markets, are likely to continue to be reflected in financial market prices and confidence, both in the euro area and elsewhere, and this effect is present in the MPC's fan charts. Developments in the euro area are therefore likely to have a pervasive impact on UK economic prospects in coming years, not only through trade, as discussed below, but also through their impact on credit conditions and uncertainty, as discussed later in this section.

### How much will exports support UK growth?

Weaker euro-area demand growth is a key factor behind the marked slowing in UK export growth over the past year. And the future path of UK export growth will be strongly influenced by the extent and pace of the euro-area recovery. For much of the forecast period, activity in the euro area is likely to remain weak, as the most vulnerable countries attempt to restore their competitiveness and reduce their indebtedness, and as uncertainty and tight credit conditions weigh on growth in the region as a whole. But a gradual recovery in euro-area growth is likely as confidence in an orderly resolution of the challenges facing the periphery countries begins to build. There are, however, considerable risks to that assumption.

There is also uncertainty about the demand outlook elsewhere in the world. The recovery in the United States has been modest, with headwinds, including uncertainty about the nature and extent of fiscal tightening next year, weighing on activity. Some emerging economies have seen growth slow to below-average rates. Although that in part reflects weaker external demand, it is also the consequence of past domestic policy tightening. The outlook will, in part, depend on the extent to which the authorities in these countries can boost domestic demand to counteract any slowing in exports.

Export growth will also depend on the share of foreign demand that UK producers are able to capture. That share has tended to decline since the mid-1990s as low-cost producers have expanded exports. The boost to UK competitiveness from the

**Chart 5.10** Projected probabilities of CPI inflation outturns in 2013 Q3 (central 90% of the distribution)[a]

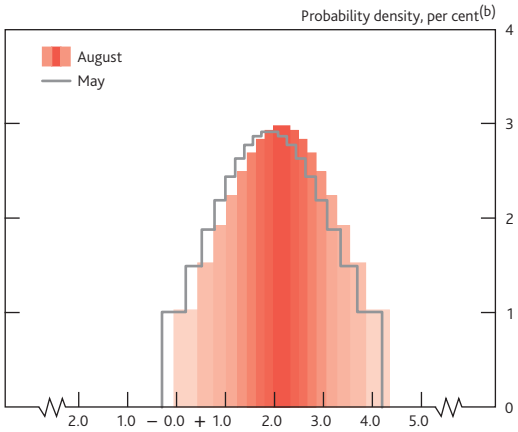
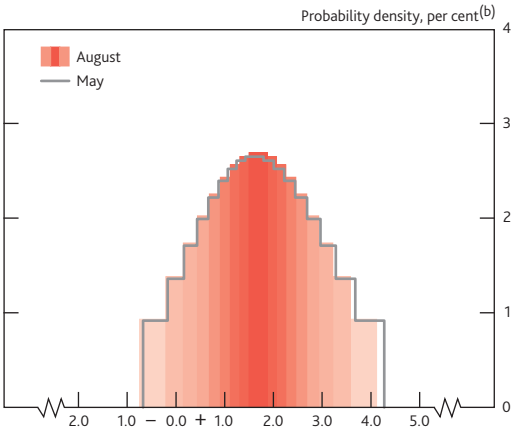



**Chart 5.11** Projected probabilities of CPI inflation outturns in 2014 Q3 (central 90% of the distribution)[a]




(a) **Charts 5.10** and **5.11** represent cross-sections of the CPI inflation fan chart in 2013 Q3 and 2014 Q3 for the market interest rate projection. They have been conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves reaches £375 billion and remains there throughout the forecast period. The coloured bands in **Charts 5.10** and **5.11** have a similar interpretation to those on the fan charts. Like the fan charts, they portray the central 90% of the probability distribution. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in 2013 Q3 and 2014 Q3 would lie somewhere within the range covered by the histogram on 90 occasions. Inflation would lie outside the range covered by the histogram on 10 out of 100 occasions. The grey outlines in **Charts 5.10** and **5.11** represent the corresponding cross-sections of the May 2012 *Inflation Report* fan chart, which was conditioned on the assumption that the stock of purchased assets financed by the issuance of central bank reserves remained at £325 billion throughout the forecast period.

(b) Average probability within each band; the figures on the y-axis indicate the probability of inflation being within ±0.05 percentage points of any given inflation rate, specified to one decimal place. As the heights of identically coloured bars on either side of the central projection are the same, the ratio of the probability contained in the bars below the central projection, to the probability in the bars above it, is given by the ratio of the width of those bars.

25% depreciation of sterling that occurred between mid-2007 and the end of 2008 appears to have interrupted the trend decline in the goods' export share, but services exports — in particular business and financial services exports — seem to have underperformed since the start of the financial crisis relative to their past trend (Section 2). There is uncertainty as to whether UK services providers will be able to regain market share over the forecast period — financial services exports, for example, could remain weak for some time. Moreover, the sterling ERI has appreciated by around 5% relative to its 2011 average, as the euro has depreciated, which could hamper export growth somewhat. Overall, although UK exporters might continue to lose market share, a pickup in export growth is likely as a modest recovery in global demand takes hold, but there are considerable risks around this outlook.

## Will the drag from the banking sector lessen?

The problems in the banking sector have weighed on UK demand over the past four years. In the aftermath of the financial crisis, the necessary process of balance sheet repair by banks was associated with a sharp fall in lending to the private sector. And bank funding costs remain much higher than before the crisis, putting upward pressure on the lending rates faced by businesses and households.

Since the May *Report* the Bank and the Government have together launched the FLS. That allows banks access to funding at below market rates, with those banks that maintain or expand lending able to obtain funds on preferential terms (see the box on pages 14–15).

The MPC judges that a large part of the fall in funding costs achieved by banks accessing the FLS will be passed onto household and business lending rates: some institutions have

already announced lower rates on some products as a result of the FLS. The MPC also judges that banks will lend more than they would have done in the absence of the FLS, both as a result of the lower cost of loans and because some households and businesses that have recently found it hard to get credit — such as first-time buyers unable to raise large deposits — may find it easier to access loans. The eventual impact on activity will depend, however, on how much households and companies want to borrow at the available terms and conditions. And it will also depend on whether it is associated with any portfolio rebalancing in the non-bank private sector. Overall, it is likely that, by providing a cheaper source of funding and encouraging lending, the FLS will boost growth, particularly over the first half of the forecast period. The central projection embodies a relatively cautious assumption regarding its impact and so the risks around it are probably skewed to the upside.

## Will increases in household spending spur a recovery in output?

The MPC's asset purchases, together with a loosening in credit conditions associated with the FLS, should support consumption. Further support should come from a recovery in real income growth: significant rises in VAT, and in import and energy prices have squeezed real income and hence consumption growth, but their impact is now starting to ease. There is uncertainty, however, about how quickly consumption growth will pick up: some households may adjust their spending quite slowly as real income growth recovers, if, for example, it takes them time to appreciate the impact of the fall in inflation. Moreover, there is uncertainty about how much of their income households will save over the forecast period. In the wake of the financial crisis, the saving ratio rose as future income prospects worsened and heightened uncertainty encouraged households to build up precautionary assets. If households have completed that adjustment, their spending may rise rather faster than income for a period, and the saving ratio would then fall back. But the saving ratio may remain flat or rise further if some households have yet to build up a sufficient buffer of assets — perhaps because the income squeeze has prevented them from saving — or others want to reduce their debts relative to income or are concerned about their future retirement provision. Overall, the MPC judges that a gentle recovery in consumption growth is likely over the next year on the back of the recovery in real income growth and the support offered by the policy stimulus, with the saving ratio falling back a little.

As a recovery in consumer spending takes hold, that should support some recovery in business investment. But the extent of that recovery will depend on companies' access to finance, how much spare capacity they have, and concerns about the durability of the recovery, particularly if uncertainty about the euro area persists.

## How much will productivity growth recover?

Since mid-2010, companies have increased employment by much more than would be expected given subdued output, such that measured productivity has been stagnant, in contrast to its usual rising trend. Output or employment could be mismeasured, but mismeasurement would have to be unusually large to account for much of the recent weakness. The key issue is therefore whether weak productivity growth since the start of the financial crisis is a largely cyclical phenomenon or reflects a persistent slowing in underlying productivity growth.

Problems in the banking system may have restrained productivity. For example, some companies may have been unable to obtain finance to expand their operations, while others may have found their production constrained by restricted access to working capital. In that case, underlying productivity will depend on how credit conditions evolve, and the FLS could support supply as well as demand. It is also possible that the weakness in demand is itself bearing down on productivity — for example, some companies seeing lower demand for their goods or services may have diverted resources away from producing output towards generating custom. In that case, as demand comes back on stream, so should productivity.

Overall, the MPC judges that underlying productivity growth has been unusually weak and, while productivity growth is likely to strengthen gradually, it may well stay below its historical average rate for much of the forecast horizon. There is much uncertainty around how fast and how far underlying productivity growth will recover. But should some of the risks around activity materialise, they are likely to be associated with corresponding impacts on demand and supply. They would, therefore, have fewer implications for spare capacity and inflation.

## How will companies' labour costs and prices evolve?

Wages have grown at well below their average rate in recent years, reflecting drags from both labour market slack and subdued productivity growth. Considerable slack probably remains in the labour market. Over the forecast period slack is likely to be eroded somewhat: some of those who have been without work for an extended period are likely to lose the skills that they need to compete effectively for jobs or leave the labour market altogether; and, later in the forecast period as activity recovers, employment is likely to rise somewhat. There is uncertainty about both the extent to which employment will rise, and the proportion of the unemployed that will become discouraged from searching for work, and therefore about how much slack will be eroded. But slack is likely to continue to bear down on wage growth to some degree throughout the forecast period.

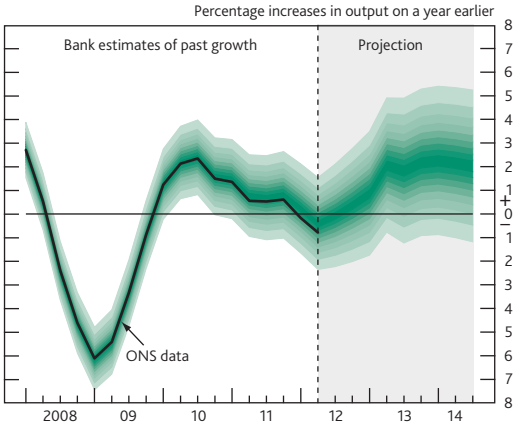
In recent years, wage growth has not been weak enough to offset weak productivity growth fully, putting upward pressure on companies' unit labour costs. A recovery in productivity growth should reduce that pressure, but by how much will depend on how quickly wage growth picks up in response: changes in productivity will eventually be reflected in wages. Overall, unit labour cost growth is likely to slow to below-average rates, but there is uncertainty around that outlook.

There is also uncertainty about the extent to which prices will rise relative to labour, and other, costs. It is likely that plentiful spare capacity within companies, by lowering the cost of increasing output, has weighed on inflation in recent years. As the degree of spare capacity shrinks, the extent of downward pressure should ease. In addition, companies' profit margins appear to remain somewhat squeezed (Section 4). And within that, domestic-facing companies, who are more important for consumer price inflation, have probably experienced below-average profits, while exporters have benefited from the lower level of sterling. The MPC judges it likely that consumer-facing companies' profit margins will be restored somewhat over the forecast period. That could come about as surviving consumer-facing companies raise their prices at a faster rate than costs rise. But margins could be also restored by some currently less profitable companies refocusing their activities away from the consumer sector, as part of the process of rebalancing the economy.

### How will commodity prices evolve?

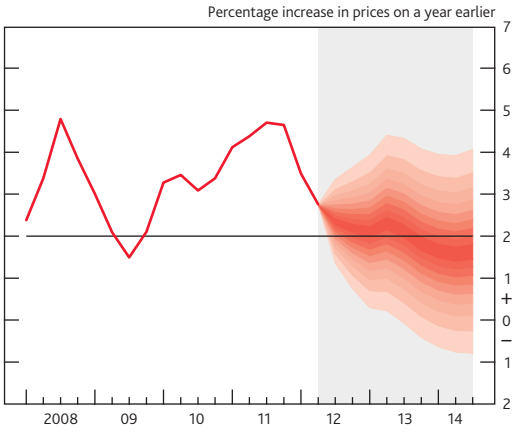
Regardless of underlying domestic pressures, the path of inflation can always be buffeted by unexpected movements in commodity prices. For example, a significant part of the fall in CPI inflation in May and June was due to lower petrol prices following falls in oil prices. The MPC's fan charts are conditioned on a downward-sloping oil futures curve and broadly flat futures prices for other commodities, on average. But unexpected idiosyncratic supply developments in commodity markets could lead to sharper movements in prices and hence UK inflation. For example, food prices reflect weather conditions, as seen in rises in corn and wheat prices following the recent drought in the United States. Commodity prices also reflect demand conditions: as output growth in emerging economies tends to be more energy-intensive than in advanced economies, commodity prices will be particularly sensitive to any weakening or strengthening in growth in those countries.

**Chart 5.12** GDP projection based on constant nominal interest rates at 0.5% and £375 billion asset purchases




See footnote to **Chart 5.1**.

**Chart 5.13** CPI inflation projection based on constant nominal interest rates at 0.5% and £375 billion asset purchases




See footnote to **Chart 5.6**.

## 5.3 Summary and the policy decision

Inflation has fallen further and is now likely to be close to the target by the turn of the year. Where inflation settles thereafter will depend on: the extent of the demand recovery and associated movements in supply; how much any spare capacity weighs on costs and prices; and the path of commodity prices and the exchange rate. There remains a range of views among the Committee about the likely impact of these factors, and therefore the outlook for inflation. The Committee's best collective judgement is, however, that, based on the conditioning assumptions described above, inflation is a little more likely to be below the target than above it for much of the second half of the forecast period, but those risks are judged broadly balanced at the forecast horizon.

**Charts 5.12** and **5.13** show the GDP growth and inflation projections for the next two years under the alternative assumption that Bank Rate is held constant at 0.5%. That path for Bank Rate is higher than the path implied by market interest rates, but that does not affect the outlook materially.

In evaluating the outlook for growth, the Committee will focus on indicators of: the prospects for the world economy, and in particular developments in the euro area; the exchange rate; the impact of the FLS on credit conditions and the real economy; households' and businesses' uncertainty; the evolution of underlying productivity growth; and the impact of the MPC's asset purchases on demand.

In evaluating the outlook for inflation, the Committee will in addition focus on indicators of: commodity prices; the degree of spare capacity in the economy; unit labour costs; and companies' price-setting behaviour.

At its August meeting, the Committee noted that tensions within the euro area had heightened in recent months and this had increased some private sector funding costs in the United Kingdom, especially for banks. Output growth had been weak, and inflation had fallen sharply and was expected to fall back further to around the target. The Funding for Lending Scheme had just opened, and, at its July meeting, the Committee had expanded the size of the asset purchase programme by £50 billion to £375 billion. Against that backdrop, the Committee decided that it was appropriate to maintain Bank Rate at 0.5% and the size of the asset purchase programme at £375 billion in order to meet the 2% CPI inflation target over the medium term.

## The MPC's forecasting record

This box, the latest in a series published each August, compares outturns for GDP growth and inflation with the MPC's projections. Given the inherent uncertainty about the future evolution of the economy, the MPC considers the whole distribution of possible outcomes when setting policy. Reflecting that, the Committee's projections are published in the form of fan charts (see, for example, **Chart 5.1**), rather than point forecasts. When assessing the MPC's projections, outturns should, therefore, be compared with those probability distributions.

The first part of this box assesses where GDP growth and inflation outturns have fallen within the probability distributions since 1998. The second part of the box focuses on how the economy has evolved relative to the distributions in the May 2011 *Report*.

### The MPC's projections since 1998 and outturns

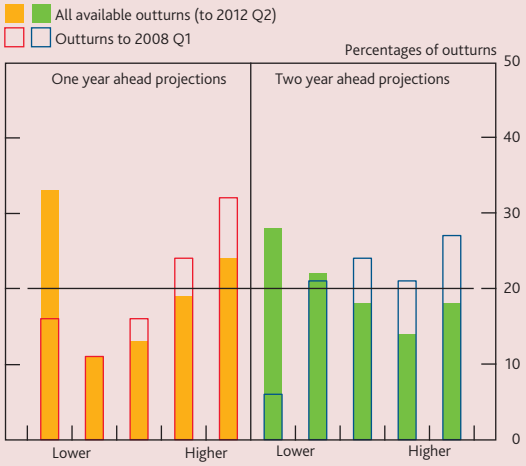
One way to assess the MPC's projections is to examine the dispersion of outturns across the probability distributions over a period of time.[1] **Charts A** and **B** show, for four-quarter GDP growth and inflation respectively, the proportion of outturns that have fallen in each quintile of the probability distributions at the one-year and two-year horizons. If the fan charts accurately described the uncertainty faced by the MPC and the sample was large enough, then outturns could be expected to lie within each quintile on 20% of occasions — illustrated by the black line.

In the period since 1998, outturns for GDP growth at the one-year horizon have fallen in the lowest quintile more often than would have been suggested by the fan charts — shown by the solid gold bars in **Chart A**. At the two-year horizon — shown by the solid green bars — outturns have also fallen most frequently in the lowest quintile, albeit to a lesser extent than at the one-year horizon. That clustering of outturns in the lowest quintile of the distributions at both the one-year and two-year horizons reflects developments over the past four years. During that period, the UK economy experienced an unexpectedly severe recession in 2008/09 and the recovery since then has been unusually weak. Over the period from 1998 to 2007 — a period of relative economic stability — a far smaller proportion of outturns fell in the lowest quintile at both horizons (shown by the hollow red and blue bars in **Chart A**).

The distribution of GDP growth outturns across the quintiles has been affected by significant revisions to the data over the past year. Changes to statistical methods implemented in the 2011 edition of the *Blue Book* led to four-quarter real GDP growth being revised up by around 0.3 percentage points on average between 1998 and 2006, the period over which data were affected only by methodological changes.[2] In addition, the pattern of growth was substantially revised, particularly from 2007 onwards (**Chart C**). As a result of those changes in the pattern of four-quarter growth, as well as subsequent small revisions in *Blue Book 2012*,[3] the current vintage of data suggests that GDP growth outturns have fallen in the middle quintiles of the fan chart less frequently than was previously estimated — even when the average effect of the methodological changes is taken into account.

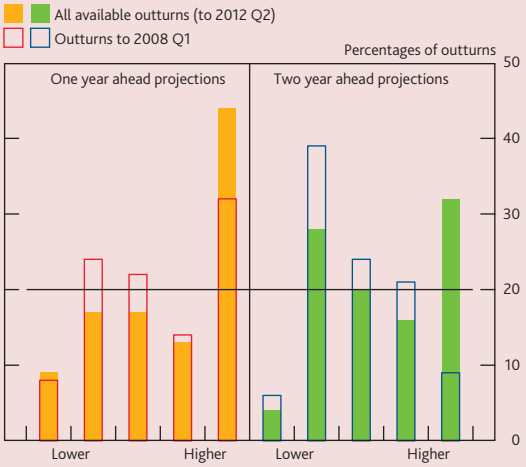
Inflation outturns since 1998 have, at both the one-year and the two-year horizons, fallen within the highest quintile of the distribution more often than would have been suggested by the fan charts (**Chart B**). That mostly reflects the fact that the UK economy has been affected by several large relative price

**Chart A** Dispersion of GDP growth outturns across quintiles of the fan chart probability distributions[a]




(a) Calculated for the market rate fan charts published since February 1998. The modes of the fan chart distributions for GDP growth have been adjusted up by 0.3 percentage points, to reflect the effects of methodological changes implemented in the 2011 edition of the *Blue Book*.

**Chart B** Dispersion of inflation outturns across quintiles of the fan chart probability distributions[a]




(a) Calculated for the market rate fan charts published since February 1998. Inflation fan charts refer to RPIX inflation up to November 2003 and CPI inflation thereafter.

shocks over the past four years. In the decade prior to 2008, outturns fell most frequently in the middle quintiles at both horizons.

Previous boxes in this series have examined developments relative to projections made between 2008 and 2010. The remainder of this box focuses on outturns over the past year relative to the May 2011 projections.

## How has the economy evolved relative to the distributions in the May 2011 *Report*?

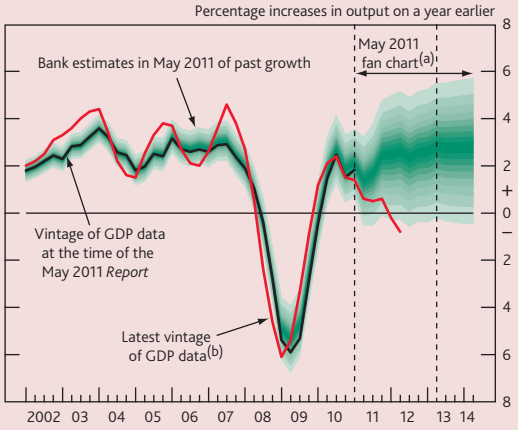
Four-quarter GDP growth in the year to 2012 Q2 was -0.8%. That was over 3 percentage points below the modal projection in the May 2011 *Report* (**Chart C**). The MPC attached a probability of less than 5% to an outturn as low or lower. Despite that weakness in output growth, CPI inflation has evolved broadly in line with the modal projection in the May 2011 *Report* (**Chart D**).

It is likely that a large part of the unanticipated weakness in GDP growth over the past year reflects an unexpected slowing in demand growth in the rest of the world, especially the euro area (Section 2). In May 2011, the MPC judged that the global recovery would continue, which, together with the past depreciation of sterling, would lead to robust growth in exports. But exports fell over the year to 2012 Q1. In addition, concerns about the risk of a disorderly resolution to the challenges faced by several euro-area countries have intensified. That is likely to have adversely affected asset prices, bank funding costs and confidence, and therefore to have weighed on domestic demand growth.

Demand is also likely to have been hampered by domestic headwinds over the past year. For example, household spending was restrained in 2011 by a continued squeeze on real incomes (Section 2). But these headwinds were already factored in to the May 2011 projections.

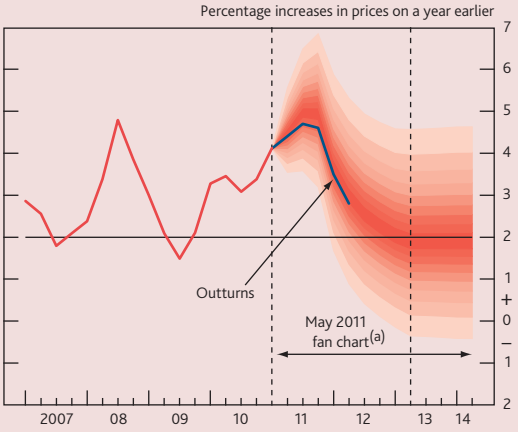
The unexpected weakness in GDP growth could have been expected to feed through into lower inflation. But weak demand growth has been accompanied by weak productivity growth. As a result, growth in private sector unit wage costs has been around its historical average rate, despite subdued demand. And so domestic cost pressures have not weakened by as much as the news in demand would suggest. It may, however, also be too soon to have seen the full effects of weaker demand growth on inflation, as it typically takes a while for changes in demand to feed through into prices.

**Chart C** GDP outturns and projection in the May 2011 *Inflation Report*




(a) Based on market interest rate expectations and the assumption that the stock of purchased assets remained at £200 billion throughout the forecast period. See footnote to **Chart 5.1** for information on how to interpret the fan chart. No adjustment has been made to the fan chart to reflect the effects of methodological changes implemented in the 2011 edition of the *Blue Book*. The effects of those changes are small compared with the width of the May 2011 fan chart.
(b) Revisions to early estimates of GDP growth and methodological changes account for the gap between the red and black lines prior to the first vertical dashed line.

**Chart D** CPI inflation outturns and projection in the May 2011 *Inflation Report*




(a) Based on market interest rate expectations and the assumption that the stock of purchased assets remained at £200 billion throughout the forecast period. See footnote to **Chart 5.6** for information on how to interpret the fan chart.

(1) For further analysis on the MPC's past forecasts, see Groen, J, Kapetanios, G and Price, S (2009), 'A real time evaluation of Bank of England forecasts of inflation and growth', *International Journal of Forecasting*, Vol. 25, pages 74–80.
(2) See the box on pages 20–21 of the November 2011 *Report*.
(3) See the box on page 20 for details.

## Other forecasters' expectations

Every three months, the Bank asks a sample of external forecasters for their latest economic projections. This box reports the results of the most recent survey, carried out during July. On average, forecasters expected CPI inflation to fall back to marginally below the 2% target by 2013 Q3 and to be at the target thereafter (**Table 1**). That profile was broadly similar to three months ago. Compared with three months ago, the range of central projections for four-quarter GDP growth one year ahead had shifted towards lower outcomes (**Chart A**). Central projections for growth two and three years ahead were also revised down, on average, but by somewhat less.

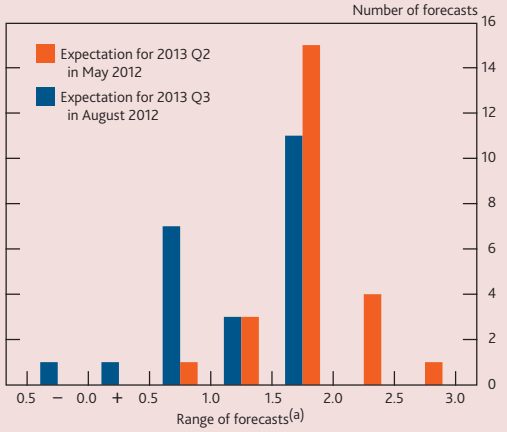
**Table 1** Averages of other forecasters' central projections[a]

| | 2013 Q3 | 2014 Q3 | 2015 Q3 |
|---|---|---|---|
| CPI inflation[b] | 1.9 | 2.0 | 2.0 |
| GDP growth[c] | 1.2 | 1.8 | 2.2 |
| Bank Rate (per cent) | 0.6 | 0.8 | 1.5 |
| Stock of purchased assets (£ billions)[d] | 405 | 422 | 415 |
| Sterling ERI[e] | 84.2 | 83.8 | 84.5 |

Source: Projections of outside forecasters as of 1 August 2012.

(a) For 2013 Q3, there were 23 forecasts for CPI inflation, GDP growth and Bank Rate, 19 for the stock of purchased assets and 17 for the sterling ERI. For 2014 Q3 and 2015 Q3, there were 20 forecasts for CPI inflation, GDP growth and Bank Rate, 16 for the stock of purchased assets and 15 for the sterling ERI.
(b) Twelve-month rate.
(c) Four-quarter percentage change.
(d) Original purchase value. Purchased via the creation of central bank reserves.
(e) Where necessary, responses were adjusted to take account of the difference between the old and new ERI measures, based on the comparative outturns for 2006 Q1.

**Chart A** Distribution of GDP growth central projections one year ahead




Sources: Projections of 24 outside forecasters as of 1 May 2012 and 23 outside forecasters as of 1 August 2012.

(a) A projection that is on the boundary of these ranges is classified in the higher bucket. For example, a 1.5% projection is included within the 1.5% to 2.0% bucket.

These forecasts assumed somewhat more monetary stimulus than was assumed three months ago. By the three-year horizon, the stock of asset purchases financed by central bank reserves was, on average, expected to be £55 billion higher than projected three months ago. The average projection for Bank Rate was unchanged over the first year, but was slightly lower at years two and three. But the level of the sterling ERI was expected to be slightly higher over the next three years.

The Bank also asks forecasters for their assessment of the risks around their central projections for CPI inflation and GDP growth (**Table 2**). The average probability assigned to inflation being above target one year ahead had fallen compared to three months ago, such that inflation was judged a little more likely to be below the target than above it. At the three-year horizon, respondents judged that the probability of inflation being above the target had also fallen (**Chart B**): risks around the inflation target were broadly balanced, in contrast to the upside risks in the May survey.

**Table 2** Other forecasters' probability distributions for CPI inflation and GDP growth[a]

**CPI inflation**

| Probability, per cent | Range: | | | | | | |
|---|---|---|---|---|---|---|---|
| | <0% | 0–1% | 1–1.5% | 1.5–2% | 2–2.5% | 2.5–3% | >3% |
| 2013 Q3 | 2 | 9 | 17 | 29 | 24 | 13 | 7 |
| 2014 Q3 | 3 | 8 | 15 | 27 | 23 | 15 | 10 |
| 2015 Q3 | 3 | 9 | 14 | 26 | 24 | 14 | 10 |

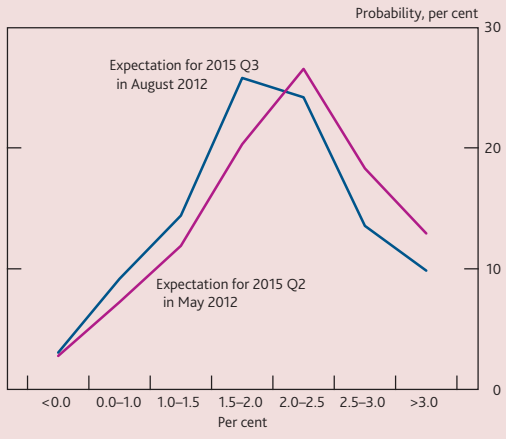
**GDP growth**

| Probability, per cent | Range: | | | | | |
|---|---|---|---|---|---|---|
| | <-1% | -1–0% | 0–1% | 1–2% | 2–3% | >3% |
| 2013 Q3 | 6 | 12 | 30 | 31 | 16 | 6 |
| 2014 Q3 | 5 | 9 | 19 | 26 | 27 | 14 |
| 2015 Q3 | 4 | 9 | 16 | 24 | 29 | 18 |

Source: Projections of outside forecasters as of 1 August 2012.

(a) For 2013 Q3, 23 forecasters provided the Bank with their assessment of the likelihood of twelve-month CPI inflation and four-quarter GDP growth falling in the ranges shown above. For 2014 Q3 and 2015 Q3, 20 forecasters provided assessments for CPI and GDP. The table shows the average probabilities across respondents. Rows may not sum to 100 due to rounding.

**Chart B** Average of other forecasters' probability distributions for CPI inflation three years ahead




Sources: Projections of 20 outside forecasters as of 1 May 2012 and 1 August 2012.

Consistent with the downward revisions to the central projections for GDP growth, forecasters also attached a higher probability to GDP growth remaining low than three months ago. The average probability of four-quarter GDP growth being below 1% one year ahead was 48%, up from 34% in May. The likelihood of growth being less than 1% at the three-year horizon had also risen, from 23% to 29%.

# Index of charts and tables

## Charts

## Tables

## Text of Bank of England press notice of 7 June 2012
## Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £325 billion

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to maintain the stock of asset purchases financed by the issuance of central bank reserves at £325 billion.

The minutes of the meeting will be published at 9.30 am on Wednesday 20 June.

## Text of Bank of England press notice of 5 July 2012
## Bank of England maintains Bank Rate at 0.5% and increases size of Asset Purchase Programme by £50 billion to £375 billion

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to increase the size of its asset purchase programme, financed by the issuance of central bank reserves, by £50 billion to a total of £375 billion.

UK output has barely grown for a year and a half and is estimated to have fallen in both of the past two quarters. The pace of expansion in most of the United Kingdom's main export markets also appears to have slowed. Business indicators point to a continuation of that weakness in the near term, both at home and abroad. In spite of the progress made at the latest European Council, concerns remain about the indebtedness and competitiveness of several euro-area economies, and that is weighing on confidence here. The correspondingly weaker outlook for UK output growth means that the margin of economic slack is likely to be greater and more persistent.

CPI inflation fell to 2.8% in May and is likely to edge down further in the near term. Commodity prices have fallen, which should help to moderate external price pressures. And pay growth remains subdued. Given the continuing drag from economic slack, that should ensure inflation continues to ease into the medium term.

At its meeting today, the Committee agreed that the Funding for Lending Scheme, which would be launched shortly, was a welcome initiative. It also noted recent and prospective actions to ease liquidity constraints within the banking system. Taken together with reduced pressure on household real incomes, on the back of lower commodity prices, and the continued stimulus from past monetary policy actions, that should sustain a gradual strengthening of output growth.

But against the background of continuing tight credit conditions and fiscal consolidation, the increased drag from the heightened tensions within the euro area meant that, without additional monetary stimulus, it was more likely than not that inflation would undershoot the target in the medium term. The Committee therefore voted to increase the size of its programme of asset purchases, financed by the issuance of central bank reserves, by £50 billion to a total of £375 billion. The Committee also voted to maintain Bank Rate at 0.5%. The Committee expects the announced programme of asset purchases to take four months to complete. The scale of the programme will be kept under review.

The minutes of the meeting will be published at 9.30 am on Wednesday 18 July.

## Text of Bank of England press notice of 2 August 2012
## Bank of England maintains Bank Rate at 0.5% and the size of the Asset Purchase Programme at £375 billion

The Bank of England's Monetary Policy Committee today voted to maintain the official Bank Rate paid on commercial bank reserves at 0.5%. The Committee also voted to continue with its programme of asset purchases totalling £375 billion, financed by the issuance of central bank reserves.

The Committee expects the announced programme of asset purchases to take another three months to complete. The scale of the programme will be kept under review.

The Committee's latest inflation and output projections will appear in the *Inflation Report* to be published at 10.30 am on Wednesday 8 August.

The minutes of the meeting will be published at 9.30 am on Wednesday 15 August.

# Glossary and other information

## Glossary of selected data and instruments

**ABS** – asset-backed security.
**AWE** – average weekly earnings.
**CDS** – credit default swap.
**CMBS** – commercial mortgage-backed security.
**CPI** – consumer prices index.
**CPI inflation** – inflation measured by the consumer prices index.
**ERI** – exchange rate index.
**GDP** – gross domestic product.
**LFS** – Labour Force Survey.
**Libor** – London interbank offered rate.
**M4** – UK non-bank, non-building society private sector's holdings of sterling notes and coin, and their sterling deposits (including certificates of deposit, holdings of commercial paper and other short-term instruments and claims arising from repos) held at UK banks and building societies.
**OIS** – overnight index swap.
**RMBS** – residential mortgage-backed security.
**RPI** – retail prices index.
**RPI inflation** – inflation measured by the retail prices index.
**RPIX** – RPI excluding mortgage interest payments.
**RPIX inflation** – inflation measured by the RPI excluding mortgage interest payments.

## Abbreviations

**BCC** – British Chambers of Commerce.
**BIS** – Bank for International Settlements.
**CBI** – Confederation of British Industry.
**CFO** – chief financial officer.
**CIPS** – Chartered Institute of Purchasing and Supply.
**ECB** – European Central Bank.
**ECTR** – Extended Collateral Term Repo.
**EU** – European Union.
**FLS** – Funding for Lending Scheme.
**FPC** – Financial Policy Committee.
**FSA** – Financial Services Authority.
**FTSE** – Financial Times Stock Exchange.
**G7** – Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.
**GfK** – Gesellschaft für Konsumforschung, Great Britain Ltd.
**GVA** – gross value added.
**HICP** – harmonised index of consumer prices.
**HMRC** – Her Majesty's Revenue and Customs.
**HMT** – Her Majesty's Treasury.
**MFI** – monetary financial institutions.
**MPC** – Monetary Policy Committee.
**MTIC** – missing trader intra-community.
**OBR** – Office for Budget Responsibility.
**OFCs** – other financial corporations.
**ONS** – Office for National Statistics.
**OOH** – owner-occupiers' housing costs.
**OPEC** – Organization of the Petroleum Exporting Countries.
**PNFCs** – private non-financial corporations.
**PwC** – PricewaterhouseCoopers.
**S&P** – Standard & Poor's.
**VAT** – Value Added Tax.

## Symbols and conventions

Except where otherwise stated, the source of the data used in charts and tables is the Bank of England or the Office for National Statistics (ONS) and all data, apart from financial markets data, are seasonally adjusted.

n.a. = not available.

Because of rounding, the sum of the separate items may sometimes differ from the total shown.

On the horizontal axes of graphs, larger ticks denote the first observation within the relevant period, eg data for the first quarter of the year.

ISSN 1353-6737
Printed by Park Communications Limited